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WATER

Transmittal Memorandum
TM 86-1

MEMORANDUM

SUBJECT: Updating of Handbook

FROM: James A. Hanlon, Director
Municipal Construction Division (WH-547)

TO: Users of Handbook of Procedures

Attached is a copy of the second updating to the Handbook of Procedures. The replacement pages are marked "TM 86-1" on the bottom right side to distinguish them from both the originals and those revised in the first updating (TM 85-1). Revised or added text material has been underlined so that the latest changes are readily recognized. All previous underlinings on the TM 86-1 pages have been removed. The TM noted pages without underlinings contain either shifted material, to accommodate lengthy insertions, on adjacent pages, or clarifications which are primarily editorial.

Also attached is a summary chart listing each revised page, its location and the reason for the change.

For persons interested in maintaining continuous records, it is suggested that this memorandum, the summary chart and the replaced pages be filed behind the flow chart.

Attachments

TRANSMITTAL MEMORANDUM (TM) 86-1
HANDBOOK OF PROCEDURES

SUMMARY OF REVISIONS

PAGE	LOCATION AND REASON FOR CHANGE
109	Par. b; added regulation cited.
119	2nd par; use of GICS in overseeing delegated activities added.
120	Par. G "Information Management". Discussion of GICS moved from Chapter III to end of Chapter I.
121	2nd & 3rd pars; discussion of GICS expanded.
307	Last par. Use of GICS in tracking projects in preapplication stage discussed.
308-312	Space Accommodation (SA) — due to transferring of GICS discussion to Chapter I.
316	2nd par.; "EA" and "FNI" added as a condition for disallowing a categorical exclusion. Last par; importance of project schedule in project management added.
405	Space accommodation (SA)
406	1st & 2nd pars.; rewritten to update status of NEPA regulations and guidance.
407	SA
408	SA
409	2nd par.; explanation of need for a project clarified.
412	Last par.; editorial changes.
413	2nd par.; verb change to reflect publication of regulations in final form.
420	4th par.; edit to clarify non-excessive inflow.
421	1st par.; edit to clarify I/I.
424	2nd par.; revision of definition of useful life.
448	1st par.; added information for I/A reviewers.
456	2nd par.; elimination of certain action by grantee when sludge found to be hazardous.
459	4th par.; proposed sludge treatment required to comply with additional Acts.
472	SA

PAGE	LOCATION AND REASON FOR CHANGE
473	1st and 2nd pars.; NEPA regulatory cite added for guidance on public participation activities.
506	4th par.; statement added to call attention to need for more cost conscious reviews of plans and specs.
612	1st & last pars.; phrases added to call attention to need for considering the status of pretreatment programs in reviewing project schedules.
631	3rd par; use of CAPDET for determining cost ratios of sewers and pumping stations added.
638	2nd par.; (see 612).
651 652 653 654 654A 654B	Additions and revisions made regarding grantee land acquisition activities to reflect changes brought about by the publication of Part IV (The Uniform Act) regulations in final form on 2/27/86.
656-7	SA
658	Par. 3; points up need to consider program guidance in reviewing I/A projects. Par. 4; Guidance an one year certification vs two year limit to declare I/A failure added.
659	Par. 2; indicates availability of assistance in conducting I/A reviews.
667	SA
668	Par. 2; added phase on allowability of planning and design costs when modifying or replacing failed I/A projects. Par. 3; guidance on source of funds for 100% M/R grants aded.
669	Last par.; added to note need to complete data base form on I/A projects.
723	Par. 3; added to note recent regulation limiting cost overruns to 5%.
724	Par. 2; cite new regulation (see 723).
727	Par. F.3.; back reference on single bids added.
730	Par. 2; phrase added on timing of Project Management Conference.
731	SA
736	Last par.; words and phrases added to clarify when change orders can be negotiated rather than be formally advertised.
737	SA
739	Par. e; sentence added to reflect 5% cost overrun ceiling.

PAGE	LOCATION AND REASON FOR CHANGE
740	3rd par.; 5% ceiling regulation cite added.
742	Last par.; sentence added on exemption provision (differing site conditions) of 5% cost ceiling regulation.
743	4th par.; two cites added: new 5% cost ceiling and recent publication on contractor claims.
745	1st par.; phrases added to clarify requirement on conducting cost or pricing analysis on change orders.
746	Requirement that agency's legal counsel review all change orders dropped.
747	2nd par.; spelling error corrected ("word" not "work".)
808 811 812	Step 1 and Step 2 grant increases modified to reflect EPA policy (issued 9/27/85) on managing these grants.
814	4th par. NPDES permit tied to project schedule.
815	3rd par. (See 814).
818	Last par; administrative completion steps clarified.
819	1st par; NOTE 1; administrative completion of segments; NOTE 2; separation of certain claims to facilitate close-outs.
820-22	SA
823	Error in cite date corrected.
824-25	SA
826	First par; procedure for managing certain final payments added.
827-30	SA
831	Last par; edited for clarity.
832	1st par; expanded procedures on handling draft audit reports. 3rd and 4th pars; expanded procedures on handling final audit reports. Last par; appeals concept expanded.
833	3rd par; expanded procedures on handling final determination letters. 4th par; last sentence expanded to relate interest payments on debts, not paid within 30 days, to disputes process per regulations issued 2/21/86. Last par; expanded procedures on recovering grantee overpayments determined at completion of audit.
912	1st & 2nd pars.; policy on interest earned on grant overpayment clarified.
913	Last par.; 5% ceiling on cost overruns added.

PAGE	LOCATION AND REASON FOR CHANGE
914	1st par.; exception (for differing site conditions) to 5% overrun ceiling noted. Last par.; deobligation procedure expanded to clarify sequence of approvals prior to reallotment.
935	Last pars.; new regulations on the allowability of field testing on I/A projects added.
936	1st par.; new regulation added on the allowability of planning and design costs re M/R costs on I/A projects.
937	SA
939	2nd and 3rd pars.; new regulation added, and explanatory paragraph modified to note that increased costs incurred as a result of awarding contracts on significant elements of a project more than a year after the Step 3 grant awarded, are unallowable unless approved in advance by RA.
940	1st par; continuation of 939 above. 2nd par; guidance an awarding bids after project schedule date when bidders agree to hold prior bids firm.
941	SA
945	Last par.; new regulation added disallowing the cost of land purchased to mitigate adverse environmental impacts.
946	SA
947	2.b. - regulation revision added to clarify unallowability of certain small and onsite system conveyance pipes.
948	2nd par.; statement added re allowability of partially acquired property: par. b; regulatory phrase added to clarify allowability statement. b.i.; surveying costs allowable only on allowable land.
949	v.; revised to clarify wording: 7th par.; added review guidance per grantee activities re The Uniform Act: 8th par.; new citation added.
950	SA
951	2.a.: 1st par.; regulation correction. 2nd par.; unallowability of surveys and preparation of legal boundary descriptions added.
952-3	SA
954	(3); regulation correction
955	1st par.; allowability of flow meters used for billing added.
956-7	SA
958	2nd par; the unallowability of the cost of grouting structurally damaged sewers under I/I added.
959-64	SA

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5. Policy Memoranda

Earlier editions of the Handbook included references to Program Guidance Memoranda (PGs) and Program Requirements Memoranda (PRMs). The PRM series replaced the PG series, and was supplemented by Program Operations Memoranda (POMs), which discussed internal EPA operational matters rather than policy issues. In July 1982, "Construction Grants 1982" (CG-82) was published and stated in its foreword, "Upon publication of CG-82, all PRMs and POMs are cancelled ...." This statement effectively terminated the codified field communication system between Headquarters, Regions, and States and replaced it with the periodic publication of the construction grants (CG) series.

Since both the CG series and the Handbook are based on information contained in the same regulatory, policy, and guidance documents, references in the Handbook seldom cite CG-85. Rather, source documents, from which statements in both texts are drawn, are cited to better assist project reviewers in their research efforts.

6. State Requirements

The contents of the Handbook reflect only Federal requirements for the construction grants program. Many States have laws, regulations, or policies which supplement Federal requirements, and in some cases may be more stringent. Where such cases exist, it is assumed that during delegation negotiations, differences will be resolved by the States and EPA to insure that State requirements will not circumvent the spirit or intent of Federal requirements. It is important for State project reviewers to be conversant with supplemental State requirements and insure that they are carried out by grant applicants and grantees.

In general, supplemental State requirements may be approved as judged appropriate by EPA as part of the delegation process, except in the area of grantee procurement, where strict requirements have been imposed on all Federal agencies by Attachment O to Office of Management and Budget (OMB) Circular A-102. The intent of Attachment O is to give grantees maximum flexibility in the procurement of goods and services, and to generally eliminate most advance approvals. Supplemental State requirements which affect grantee procurement may only be approved by EPA if all of the following conditions are met:

- the requirements are established by State law, rather than by regulations or policy documents;

c. Monitoring and Evaluating Program Performance

As part of the oversight plan and to confirm annual outputs, EPA monitors and evaluates each State's performance under delegation. An onsite evaluation is conducted annually, and additional monitoring activities, as appropriate for each delegated State, are conducted as needed.

In developing and conducting monitoring programs, extensive use should be made of the data contained in the Grants Information and Control System (GICS) (See Section I.G. below). GICS data allows program managers and analysts to identify critical or emerging problems and to develop timely plans for alleviating them. For example, data on State workload (e.g., number of projects awaiting administrative completion), can be used in developing State commitments (e.g., number of administrative completions to be performed), and in subsequently monitoring the State's progress against these commitments.

Carefully structured and conducted, the annual evaluation should help to solidify the unity of effort between EPA and the delegated States which is critical to the successful implementation of the delegation program.

Re: 40 CFR 35.3025; EPA publication, "Construction Grants Delegation and Overview Guidance," December 1983.

5. U.S. Army Corps of Engineers

EPA entered into an interagency agreement with the U.S. Army Corps of Engineers (COE) at the national level, under which the COE provides assistance in administering portions of the construction grants program. The specific functions being carried out by the COE are identified in regional interagency agreements developed between EPA Regional Offices and the corresponding COE Division offices. COE responsibilities and procedures vary from Region to Region, and serve as a supplement to a State's delegation agreement (i.e., in some States, the COE performs functions which are not delegated to the State until such time as the State is able to assume those functions, while in other States, the COE performs functions which have been delegated, but not yet assumed by the State).

COE functions may range from limited onsite inspection services to total project management responsibilities which begin as soon as the grantee has accepted the grant offer.

In many States, the COE conducts biddability/constructibility reviews of contract documents, including plans and specifications (see Section V.C.3). On very large projects or clusters of projects (e.g., where the building costs exceed $50 million), the COE may provide full-time onsite presence. Project reviewers should be aware of the contents of EPA/COE agreements in their respective States, including specific procedures and documentation requirements.

It is EPA's long term goal to have each delegated State assume those activities now being performed by the COE as soon as the State is able to do so. However, where temporary shortages in staff resources exist in a delegated State, the State may request, through EPA, COE assistance in carrying out program functions for an interim period.

Re: EPA publication, "Operating Procedures for Monitoring Construction Activities at Projects Funded under the Environmental Protection Agency's Construction Grants Program," September 1983; EPA publication, "Guidelines for Overviewing Construction Grant Activities Conducted under the Interagency Agreement with the Corps of Engineers," February 1984.

G. INFORMATION MANAGEMENT

The Grants Information and Control System (GICS) is a computerized system which is used to collect, edit, and summarize essential information concerning EPA's construction grants program. As such, it represents a significant administrative tool which enables EPA and the delegated States to efficiently manage the program. They system also provides for the retrieval of information for use by program personnel at all levels, as well as members of Congress and the public. The core of the system is the computerized data bank which stores data related to a project preapplication status, stage of application review, milestones during building, and administrative progress through audit to closeout.

Once data is entered into the system, existing computer programs are capable of producing reports ranging from the status of a single project to statewide and nationwide trends. Typical reports include the priority rating and ranking of all projects within a State, grant application and milestone tracking, audit and closeout tracking, payment tracking, etc.

The uses and limitations of GICS are described in the "Users Manual," "Reports Library," and "Data Element Dictionary," which are maintained by a GICS coordinator in each State, EPA Regional Office, and EPA Headquarters. These documents provide a detailed description of the system, a listing of available reports, a definition of data elements, and coding instructions for data entry.

From the perspective of a project reviewer, GICS output can be an effective tool in terms of tracking progress during construction, thereby insuring timely inspections. Also, the project's progress may be compared with the approved project schedule by mathematically converting the sum of all grant payments to a percentage of the grant award amount, which should be approximately equal to the project's percentage of completion. Program managers may also use GICS reports to forecast workloads for use in budget preparation and resource allocation.

As with any computerized system, GICS is only as good as the information contained therein, and the need to have construction grants program personnel enter accurate and timely information into the system cannot be overemphasized. To help ensure the accuracy of the inputed data, an edit has been built into the system which will inhibit obviously erroneous data from entry. In addition, a GICS Audit Report is run monthly for the purpose of detecting other data errors.

In most States and Regions, one person has been assigned the responsibility for maintaining GICS, including the training of both project officers and clerical support staff in its use. Also, annually, the system is examined and, as needed, upgraded through user group meetings and the formally conducted meetings of the GICS Executive Committee which is comprised of State and EPA Regional and Headquarters construction grants program staffs.

Whenever the reviewing agency corresponds with a grant applicant or a grantee regarding the submission or approval of project documents or regarding other project milestones, an appropriate entry should be made in GICS. In at least one State, GICS coding sheets are printed on the reverse side of standard form letters, and typists have been instructed not to address and mail the letters unless the coding sheet has been completed.

GICS has been designed to help manage the construction grants program effectively. Its usefulness depends largely on the construction grants program staff providing timely input of accurate information.

c. use the above information to set a time for conducting a preplanning meeting with the potential grant applicant (see Section D below);

d. enter the potential project into its management and tracking system (see Item 3 below, along with a timetable of important milestones in the project's development, as agreed to by both the reviewing agency and the grantee;

e. periodically contact the potential applicant to review its progress in relation to the project timetable, to review outputs for conformance with State and EPA requirements, and to assist the potential applicant with advice on technical, regulatory, and administrative problems; and

f. use all of the above information to generate and revise forecasts of the reviewing agency's future workload and resource requirements.

3. The Uses of GICS Data

GICS (See Section I.G) is used by managers at all levels for the tracking and management of construction projects. This system is especially useful because its reports can provide detailed information on the makeup and status of an individual project, or can display selected types of information on a larger number of projects for purposes of comparative analysis or evaluation at the State, Regional, or national level. For example, a project reviewer can use GICS to track project progress during the preapplication stage to ensure that they move from priority list to grant award in a timely manner.

D. PREPLANNING CONFERENCE

Purpose:

Meet with potential grant applicants and review major activities which must be completed prior to applying for a Step 2+3 or Step 3 grant.

Discussion:

While a preplanning conference is not required by the construction grants regulations, many State/EPA delegation agreements require that the States conduct such conferences. The importance of a preplanning conference cannot be overemphasized. It provides an opportunity for the reviewing agency to meet face-to-face with the grant applicant and its staff and review the work to be accomplished during facilities planning and design.

After determining that a project is likely to be ranked high enough on the priority list to obtain a grant in the near future, a potential grant applicant should be encouraged to prepare a plan of study prior to the preplanning conference. A plan of study, while not required by the EPA regulations, would serve as a useful basis for discussion during the conference. A typical plan of study includes: a description of the work tasks to be performed during facilities planning, a schedule for completing each major work task and output, and an estimate of the work hours and costs necessary to complete each task.

Procedures:

After a potential grant applicant has been identified, the reviewing agency should contact the applicant and schedule a preplanning conference. At the same time, the reviewing agency should encourage the grant applicant to prepare and submit a plan of study which will serve as the basis for discussion during the conference. The following major topics are typically discussed during the preplanning conference:

1. Permits and Compliance Schedules

Potential grant applicants are to be made aware that existing projects must be in compliance with schedules resulting from the implementation of EPA's National Municipal Policy (see Section II.D.1), the NPDES permit program, court orders, or State enforcement orders (see Section VI.C.6).

2. Procurement of Engineering Services

a. Procedures

The procurement of engineering or other professional services for facilities planning and/or design is not subject to the EPA procurement regulations or to an EPA audit. However, if the grant applicant anticipates using the same engineer for Step 3 construction activities, and wishes to avoid advertising and evaluating proposals for engineering services during construction, it must have procured the engineer for facilities planning and/or design in accordance with EPA procurement requirements (see Section VII.C.3).

Re: 40 CFR 33.715

b. Use of Small, Minority, Women's, and Labor Surplus Area Businesses

Grant applicants are encouraged to utilize the services of small, minority, women's, and labor surplus area businesses (see Section V.C.1.w) during facilities planning and design. At the time of grant application, they will be required to report the level of minority business enterprises and women's business enterprises (MBE/WBE) participation in facilities planning and design. Some States and municipalities may have established goals for this purpose (see Section VI.D.5).

Re: 40 CFR 33.240; 35.2104(d)

c. Use of Debarred or Suspended Firms

Grant applicants should be advised not to use individuals or firms included on EPA's list of debarments and suspensions for facilities planning or design work (see Section VI.D.7). Grant applicants should also be advised to report any instances of misconduct by their contractors (e.g., engineers, construction firms, equipment suppliers, etc.) to EPA's Office of the Inspector General (OIG), using the hotline (800-424-4000 or 202-382-4977) established for that purpose.

Re: 40 CFR 35.2105

3. Financial Considerations

a. State Priority System and Project Priority List

Grant applicants should have a clear understanding of the State priority system and project priority list. Proposed projects should be evaluated and an assessment made as to the likelihood of receiving a future grant (see Sections II.E.3 and VI.D.3).

Re: 40 CFR 35.2015, 35.2103

b. Federal Grant Share

Grant assistance is limited to 55 percent for most projects, except for grants at 75 percent for projects or portions of projects which use an innovative or alternative (I/A) technology (see Sections VI.L.2.d and VI.L.2.e) or which have received a 75 percent grant for a previously funded phase or segment (see Section VI.L.2.c). A lower Federal share may be set by the Governor (see Section VI.L.2.b).

Re: 40 CFR 35.2152

c. Financial Assistance for Facilities Planning and Design Work

Due to the elimination of Step 1 and Step 2 grants by the 1981 CWA amendments, no grants for facilities planning or design can be awarded after December 29, 1981. Instead, an allowance is provided to help offset planning and/or design costs (see Section E below, and Section VI.K.1). In some cases, a portion of the estimated allowance may be advanced to potential grant applicants (see Section E below). The allowance and advance of allowance should be explained and the grant applicant, if qualified, should be instructed on how to apply for an advance of allowance (see Section E below).

Re: 40 CFR 35.2025

d. Step 2+3 Grants

Qualifying municipalities should be advised to apply for Step 2+3 grants (see Section VI.F.1).

Re: 40 CFR 35.2109

e. Preaward Costs

In certain cases, it may be cost effective (or may be required by an emergency situation) for a grant applicant to perform some preaward work which is normally accomplished after grant award. To be allowable for grant participation, such preaward costs must be approved by the reviewing agency prior to being incurred. The reviewing agency should explain to the grant applicant the limitations which apply to preaward costs (see Section VI.D.15), and should remind the applicant that preaward costs are subject to audit (see Section VIII.E).

Re: 40 CFR 35.2118

f. Phased or Segmented Projects

Projects whose cost is large in relation to the State's annual allotment, and projects with expected construction schedules of three years or more, may require phasing or segmenting. If the reviewing agency anticipates such a situation, the consequences of phasing or segmenting should be explained to the grant applicant (see Section VI.D.10).

Re: 40 CFR 35.2108, 35.2123, 35.2152(a) and (c)

4. Limitations on Eligibility

a. Collection Systems

No grant award may be made for a new sewage collection system in a community unless the bulk of the design flow (generally two thirds) is attributable to the residential population which existed on October 18, 1972. Unless elected by the Governor, no grants may be awarded for new sewage collection systems after September 30, 1984 (see Sections II.E.3 and VI.D.14).

Re: 40 CFR 35.2015(b)(2)(ii), 35.2116

d. Intermunicipal Service Agreements

Where applicable, grant applicants should be made aware of the need for executed intermunicipal service agreements and the long lead times generally necessary to negotiate such agreements (see Section V.H).

Re: 40 CFR 35.2107

e. User Charge System

The requirements for a user charge (UC) system should be explained, particularly for multimunicipal projects or those municipalities with an ad valorem tax based system (see Section V.E).

Re: 40 CFR 35.2122, 35.2140, 35.2208

f. Sewer Use Ordinance

The requirements for a sewer use ordinance (SUO) should be explained, especially if the municipality will receive industrial wastes and possibly be subject to the pretreatment requirements (see Section V.F).

Re: 40 CFR 35.2122, 35.2130, 35.2208; 40 CFR Part 403

g. Plan of Operation

The requirements for a draft and a final plan of operation, including an operation and maintenance (O&M) manual, should be discussed (see Section V.G).

Re: 40 CFR 35.2106

h. Project Performance Standards

While project performance certification and continuing engineering services are not required until well after the project has been awarded a grant, the grant applicant should be made aware of these relatively new requirements (see Sections V.C.2.a, VI.M.5.g, and VII.I.2.a).

7. Categorical Exclusion

An environmental review must be conducted by the reviewing agency, in accordance with 40 CFR Part 6, for each project requesting grant assistance. The environmental review may result in the issuance of a categorical exclusion, a finding of no significant impact (FNSI), or the need to prepare an environmental impact statement (EIS). At the preplanning stage, it may be possible to conclude that a categorical exclusion is warranted, or alternatively that, because of the significant environmental impacts resulting from the proposed project, an EIS should be prepared concurrently with the preparation of the facilities plan (frequently called piggybacking).

The conditions under which a categorical exclusion may be issued should be given consideration at the pre-planning stage of a project's development. If issued, a categorical exclusion will reduce the work required on the part of the grant applicant in preparing a facilities plan, thereby saving time and money. A categorical exclusion from a substantitive environmental review is intended to apply to projects which are small scale, minor, and routine. Such projects may include replacement, minor rehabilitation, minor expansion, or minor upgrading of facilities, which should not result in increasing the overall design capacity of the treatment works, nor the pipe size of interceptors or collection sewers. Where a categorical exclusion is granted by EPA, an EID need not be prepared by the grant applicant. However, if it is later found that conditions exist which require the preparation of an EA, FNSI or EIS, the categorical exclusion will be revoked by EPA, and the grantee will be required to furnish an EID (see Section IV.D).

Re: 40 CFR 6.400(f), 6.506(c), 6.507(a), 35.2030(c)

8. Project Management

Special emphasis should be placed on organizing the grant applicant's project team, particularly the selection of the engineering consultant, and on the demonstration, by the grant applicant, of its financial and managerial capability (see Section VI.D.4). The grant applicant should also be advised of the importance of developing and maintaining a good record keeping system, with particular emphasis on records documenting eligible project costs and demonstrating compliance with EPA requirements, including grant conditions. In addition, the applicant should be advised of the need to develop and maintain a project schedule (See Section VI.C.6) and that failure to meet dates contained in that schedule could be cause for an enforcement action.

However, prior to Step 3 grant award, older facilities plans may require updating to reflect current data (e.g., existing population, land uses, costs, etc.). The effect of the reduced Federal grant share after September 30, 1984 (usually 55 percent), and the resultant larger local share, may require additional public disclosure and/or financial arrangements.

The review of facilities plans initiated by a grant applicant without the benefit of grant assistance (most likely between December 29, 1981 and February 17, 1984) requires judgement on the part of the reviewing agency with regard to the application of either Subpart E or the interim (May 12, 1982) Subpart I regulations (see Sections VI.C.2 and VIII.B.1.c). Facilities planning initiated by a grant applicant after February 16, 1984 is subject to the final regulations published by EPA on February 17, 1984.

To assist construction grants personnel in identifying applicable regulations and policies in effect at the time of initiating project work, EPA has published the "Regulation and Policy Matrix - A Guide to the Rules Governing Grants Awarded under the Construction Grants Program", dated December 1983. Using this guide, the project reviewer has the ability to identify regulations, policies, and the edition of the Handbook of Procedures applicable to the specific project.

Re: Preamble to 40 CFR Part 35, Subpart I, 49 FR 6225 (February 17, 1984).

2. National Environmental Policy Act

Regulations implementing NEPA represent the other major source of requirements used in reviewing facilities plans. EPA's regulations implementing NEPA are located at 40 CFR Part 6.

Proposed regulations based on NEPA, Executive Order 11514, and the Council on Environmental Quality (CEQ) Guidelines, were first published by EPA on January 20, 1972. They became interim regulations on January 17, 1973, were revised as proposed on July 17, 1974 and were finalized on April 14, 1975. During this period the regulations were expanded to include other Federal environmental laws and executive orders. On June 18, 1979, EPA proposed to completely revise Part 6, based on changes required by the promulgation of CEQ's regulations (not guidelines as before).

The revised 40 CFR Part 6, published as interim regulations on March 8, 1982 and interim/final on January 7, 1983, included changes to the criteria for requiring preparation of an EIS; introduced a procedure for excluding certain types of projects from substantive environmental review, called a categorical exclusion (see Section III.D.7); and changed terminology to agree with the new CEQ regulations. For example, a "negative declaration" was changed to a "finding of no significant impact" (FNSI).

On January 7, 1983, EPA issued a proposed rule to revise Subpart E of the 40 CFR Part 6 regulations to reflect the substantial changes in the construction grants program that were brought about by the 1981 Amendments to the Clean Water Act and subsequent changes to the construction grants program regulations (40 CFR Part 35). When the interim-final rule was published on 6/25/85, it contained several construction grants related changes that had not been included in the proposed rule. At the time of this updating of the Handbook, EPA was in the process of incorporating its responses to comments received on the interim final rule into a draft of the final rule. Until the final rule is published, the interim final rule remains in effect and is supplemented by a guidance memorandum ("Guidance on 40 CFR 6 Subpart E"), dated 12/13/85, from the Office of Federal Activities (OFA) to the Regional NEPA Compliance Coordinators. Project reviewers are advised to monitor the status of the final Part 6 rule.

In 1980, OFA proposed regulations describing procedures for complying with Section 106 of the National Historic Preservation Act (NHPA). These proposed regulations, intended for incorporation into 40 CFR Part 6 as Subpart K, were delayed for several years, however, pending revisions to the corresponding Advisory Council on Historic Preservation (ACHP) regulations (36 CFR Part 800). In March 1984, in the absence of revised ACHP regulations, EPA distributed its proposed Subpart K rule as non-binding guidance to assist Regions and States in reviewing actions that could affect historic and archaeological properties, and to fully integrate the statutory requirements of the NHPA into the NEPA review process. On 8/1/85, the ACHP issued draft guidelines for taking into consideration the cultural value of historic properties in reviews carried out under Section 106 of the NHPA, and on 10/15/85, the awaited revisions to the ACHP's Part 800 regulations were proposed. At the time of this Handbook updating, the ACHP was reviewing comments received on both the proposed guidelines and the proposed regulatory revisions. Until these documents are published in final form, the existing ACHP regulations (36 CFR Part 800) and the aforementioned EPA non-binding guidance remain in effect. Project reviewers are advised to monitor the status of the ACHP regulatory revisions.

Re: 40 CFR 6.301

3. Water Quality Management Plans

A portion of the funds allotted to each State are reserved for grants to carry out WQM planning (see Sections II.C.4 and II.E.4). Among other things, WQM planning identifies cost effective and locally acceptable facilities to achieve and maintain the applicable water quality standards. WQM planning will also determine which publicly owned treatment works (POTWs) should be constructed, in which areas, and in what sequence.

Two limitations on award of grant assistance (see Section VI.D.2) require a project to be consistent with the approved elements of any applicable WQM plan, and the grant applicant to be the wastewater management agency designated in that WQM plan.

A complete description of WQM planning is given in Chapter II. As project reviewers are preparing to review facilities plans, they should be aware of the WQM plan which has been prepared for the project area, and insure that the facilities plan is consistent with that WQM plan. Differences or inconsistencies may require revision of either the facilities plan or the WQM plan.

Re: 40 CFR 35.2023(a)(1) and (a)(4), 35.2102

4. Facilities Planning Review

Facilities planning is the first major activity undertaken by a potential grant applicant as a prerequisite to grant award. Facilities planning consists of those necessary plans and studies which directly relate to treatment works needed to comply with enforceable requirements of the CWA. Facilities planning investigates the need for proposed facilities through a systematic evaluation of alternatives that are feasible in light of the unique demographic, topographic, hydrologic, and institutional characteristics of the area; and demonstrates that the selected alternative is cost effective. The regulations define "cost effective" as "the most economical means of meeting the applicable effluent, water quality, and public health requirements over the design life of the facility while recognizing environmental and other non-monetary considerations."

In order to further clarify the intent of facilities planning, the regulations include a description of facilities plan contents at 40 CFR 35.2030(b), which provides that a facilities plan must describe both the proposed treatment works and the complete waste treatment system of which it is a part. A facilities plan must also include an adequate evaluation of the environmental impact of alternatives, in accordance with 40 CFR Part 6. The two regulations (i.e., 40 CFR Part 6 and 40 CFR Part 35, Subpart I) are the primary source documents which set forth the requirements for facilities planning.

Facilities planning is considered by many to be the most complex aspect of the construction grants program. Its complexity is primarily related to the subjective interrelationships between engineering feasibility, economic and environmental considerations, public acceptance, and institutional arrangements necessary for project implementation. The need to adequately address, evaluate, and integrate these considerations very often requires expertise from several disciplines. The importance of each consideration may vary from project to project, and may be related to the size and complexity of the project, its geographic location, and the perceived values of the grant applicant.

While the regulations describe the contents of a facilities plan, they do not specify the format for presentation of the required information. Recognizing that grant applicants needed assistance in this area, EPA published "Guidance for Preparing a Facility Plan" (MCD-46), which was revised in May 1975. This publication contained a suggested outline designed to satisfy regulatory requirements for facilities planning. Since 1975, EPA has not found it necessary to revise the suggested outline, since it continues to present the required information in a sequence corresponding to the logical preparation of a facilities plan. EPA has, however, published other documents, targeted to grantees or grant applicants, which address facilities planning (e.g., FP-81, CG-82, and CG-85). These documents incorporate new statutory requirements and seek to clarify and elaborate many of the considerations in facilities planning (see Section B.1 above).

Re: 40 CFR 35.2030

C. FACILITIES PLAN CONTENTS

The following sections describe the contents of a facilities plan, using a suggested outline for presentation of the required information. However, a grant applicant may select his own method or format.

The suggested outline uses a numerical system for chapters and subheadings. Some of the information is self explanatory and is so noted. Other information follows the general format of this Handbook and is described by a Purpose, Discussion, Review Procedure, and References.

1. Summary, Conclusions, and Recommendations

Self-explanatory.

2. Purpose and Need

2.1 Study Purpose

A facilities plan is prepared as one component of an application for grant assistance. The facilities plan establishes the need for the project; evaluates alternative solutions; and selects a cost effective, environmentally sound project. The facilities plan also represents a public record of decision-making and should be written to provide the general public, municipal officials, and regulatory officials with a clear understanding of the problem, solutions, and consequences of the project. The proposed project must satisfy all applicable Federal and State laws and regulations.

2.2 Need for the Project

Purpose:

A facilities plan must establish the need for the proposed project and demonstrate how the project, or the complete treatment system of which it is a part, will meet the enforceable requirements of the CWA.

Discussion:

Demonstration of project need may range from a relatively simple to a complex justification. Many cases arise where an existing treatment works is in violation of its National Pollutant Discharge Elimination System (NPDES) permit, or the municipality is under a court or enforcement order requiring corrective action. The need for the project is based on an assessment that a structural solution is required to abate water pollution, i.e., that upgraded operation and maintenance or a program of flow reduction will be insufficient.

An example of a more complex case, in terms of demonstrating need, is where a municipality claims need based on failing onsite systems. Since no discharge permit exists, the facilities plan must demonstrate the need for the project based on the extent of surface or ground water use, restoration or public health improvement resulting from the project. In order to demonstrate project need, a grant applicant may be required to document the number, frequency, type, and location of failing onsite systems through the use of local health department records, survey questionnaires, or house-to-house surveys. Earlier EPA policy required this type of specific documentation. However, present agency policy allows States and EPA Regions to determine the type of documentation required to substantitate failing onsite systems on a case-by-case basis. Guidance on evaluating need is presented in "How to Conduct A Sanitary Survey" which is contained in Appendix R of CG-85.

Another relatively complex case, requiring judgement in terms of demonstrating need, concerns proposed CSO projects. Depending on the source of funding from the States' allotment, the State may have to demonstrate that significant uses of the water for fishing and swimming will not be possible without the project, and that the project will result in substantial restoration of an existing impaired use (see Sections II.E.3 and VI.G).

Other types of eligible projects for which a unique approach may be necessary to demonstrate project need include: infiltration/inflow (I/I) correction, treatment more stringent than secondary and (in States where the Governor elects to include project categories not normally eligible for grant assistance after September 30, 1984) major sewer system rehabilitation (see Section II.E.3).

A demonstration of project need is not necessarily an easy task, and will require unique documentation depending on the circumstances of a particular project. Project need may also be demonstrated throughout many sections of a facilities plan, rather than being presented in one chapter or section. With regard to acceptance of the grant applicant demonstration of project need, the principal responsibility of project reviewers is to insure that the proposed project, or the complete treatment system of which the project is a part, meets the enforceable requirements except as noted in the review procedures below.

Review Procedures:

A facilities plan must demonstrate project need in terms of meeting the enforceable requirements of the CWA by:

a. including a copy of regulatory directives (e.g., NPDES permit requirements, court or enforcement orders, etc.) in the case of existing treatment facilities; or

b. substantiating that the proposed project will reduce pollution and result in surface or ground water use restoration or public health improvement.

An exception to this requirement may apply to certain "sewer projects," as described in Section II.E.3.

Re: 40 CFR 35.2000(a), 35.2015(b) and (f), 35.2024(a), 35.2030(a)(1)

3. Effluent Limitations

Purpose:

Effluent limitations establish the effluent characteristics for surface water discharges, or the quality of groundwater to be maintained for land application systems.

Discussion:

Effluent from a treatment works is either discharged to a surface water body, recharged to groundwater, recycled for other uses, or evaporated in containment ponds. For containment ponds, assuming that the ponds are lined to prevent seepage into the groundwater, no effluent limitations are required. Recycled effluents must meet the characteristics necessary for their intended use. However, if the recycled effluent is eventually discharged to a surface water body or to groundwater, the recycled effluent must satisfy the applicable effluent limitations.

Facilities plans are required to describe the Best Practicable Wastewater Treatment Technology (BPWTT) applicable to each alternative under consideration. BPWTT is defined in the regulations as the cost effective technology that can treat wastewater, CSOs, and nonexcessive I/I to meet the applicable provisions of:

a. 40 CFR 122.44(d) - Water Quality Standards and State Requirements;

b. 40 CFR Part 125, Subpart G - Criteria for Modifying the Secondary Treatment Requirements under Section 301(h) of the Clean Water Act;

c. 40 CFR Part 133 - Secondary Treatment Information; and

d. 41 FR 6190 (February 11, 1976) - Alternative Waste Management Techniques for BPWTT (treatment and discharge, land application techniques and utilization practices, and reuse).

BPWTT defines a minimum level of treatment, as well as provisions for higher levels, where necessary to achieve or maintain water quality standards. Projects proposing higher levels of treatment (i.e., advanced treatment) may be subject to EPA's "Policy for Review of Advanced Treatment Projects" (see Item 3.3 below).

Re: 40 CFR 35.2005(b)(7), 35.2030(b)(2)

3.1 Secondary Treatment

The 1981 CWA amendments added Section 304(d)(4) to the CWA, which states that "such biological treatment facilities as oxidation ponds, lagoons, and ditches and trickling filters shall be deemed the equivalent of secondary treatment." However, Section 304(d)(4) also requires "that water quality will not be adversely affected by deeming such facilities as the equivalent of secondary treatment."

In implementing these provisions of the CWA, EPA conducted extensive studies of existing facilities to determine the effluent characteristics of various treatment processes.

The investigation concluded that oxidation ditches are appropriately classified as treatment processes capable of providing secondary treatment. Oxidation ponds and lagoons, referred to as waste stabilization ponds in the regulations, and trickling filters were classified as equivalent treatment processes. All other biological treatment processes were found to be capable of achieving secondary treatment.

EPA has defined the minimum level of effluent quality attainable by secondary treatment in terms of the parameters five-day biochemical oxygen demand (BOD_5), suspended solids (SS), and pH as:

- BOD_5 and SS - 30 day average shall not exceed 30 milligrams per liter (mg/l); 7 day average shall not exceed 45 mg/l; 30 day average percent removal shall not be less than 85 percent; and
- pH - effluent maintained within the limits of 6.0 to 9.0 (certain exceptions are allowed).

Treatment deemed equivalent to secondary treatment (i.e., ponds and trickling filters not capable of meeting the 30/30 mg/l effluent limits) is defined in terms of the parameters BOD_5, SS, and pH as:

- BOD_5 and SS - 30 day average shall not exceed 45 mg/l; 7 day average shall not exceed 65 mg/l; 30 day average percent removal shall not be less than 65 percent (less stringent SS limits are allowed for waste stabilization ponds where alternative values have been determined by the State and approved by EPA); and
- pH - effluent maintained within the limits of 6.0 to 9.0 (certain exceptions are allowed).

Adjusted effluent limits for existing trickling filters and waste stabilization ponds deemed equivalent to secondary treatment, are to be set on a case-by-case basis based on the performance or design capabilities of the facility to prevent backsliding. The effluent limits are not automatically adjusted to 45 mg/l. Adjustments of limits for equivalent treatment must assure that water quality is not adversely affected. A State must develop an appropriate set of effluent limits for new facilities using trickling filters or ponds. The regulations also provide for less stringent limits to be set by the State, with EPA approval, of the equivalent treatment requirements for existing trickling filters and ponds (i.e., "Alternative State Requirements"). In these cases, the project reviewer is to refer to the appropriate section of the secondary treatment regulations for specific requirements.

Project reviewers should also be aware that the effluent parameter carbonaceous biochemical oxygen demand (CBOD$_5$) may be used in lieu of the more common BOD$_5$ under the revised secondary treatment regulations. It has been determined that CBOD$_5$ more accurately reflects treatment performance with regard to organic material than BOD$_5$. Where CBOD$_5$ is used, the secondary treatment definition changes for 30 and 7 day averages to 25 mg/l and 40 mg/l respectively. For treatment processes deemed equivalent to secondary treatment, the CBOD$_5$ limits for 30 and 7 day averages are 40 mg/l and 60 mg/l respectively.

Re: Final amendment to 40 CFR Part 133, 49 FR 36986 (September 20, 1984).

The percent removal provision of the secondary treatment regulations has been revised to allow more flexibility in terms of adjusting percent removal requirements for individually justifiable cases. The revised regulations allow a lower percent removal requirement or a mass loading limit if:

- The treatment works is consistently meeting or will meet (for new plants) its permit effluent concentration limits (e.g., 30 mg/l BOD$_5$ and TSS for secondary treatment; 45 mg/l BOD$_5$ and TSS for equivalent technologies except ponds with approved less stringent limits, but its percent removal requirements cannot be met due to less concentrated influent wastewater.

- To meet the percent removal requirements, the treatment works would have to achieve significantly more stringent limitations than would otherwise be required by the concentration-based standards (e.g., at least 25 mg/l BOD$_5$ and TSS for secondary treatment) or would force significant construction or capital expenditure.

- The less concentrated influent wastewater is not the result of excessive I/I. Definition of excessive I/I is based on that used in the construction grants regulations (i.e., 20 gpcd dry weather flow and 275 gpcd during storm events).

Re: Final amendments to 40 CFR Part 133.103(d), 50 FR 23387 (June 3, 1985). Technical correction to 40 CFR Part 133.103(d), 50 FR 36880 (September 10, 1985).

3.2 Marine Discharge Waivers

Refer to Section VI.E.2 for a discussion of requirements applicable to projects with marine discharge waivers.

3.3 Advanced Treatment

Effluent limitations more stringent than secondary treatment (i.e., advanced treatment) may be established by a State for water-quality-limited stream segments. These effluent limitations are determined in the WQM plan, and are based on the wasteload allocation for the specific stream segment into which the effluent is discharged (see Section II.C.3). Where advanced treatment is required to achieve or maintain water quality standards, and where the incremental costs exceed specific limitations, such projects are subject to a more intensive review by the State, EPA Regional Office, and possibly EPA Headquarters. Refer to Section E.1 below for a discussion of the review and processing procedures for such projects.

3.4 Land Application

Wastewater effluent applied to land may either recharge the groundwater, be collected for disposal to surface water bodies, or a combination of both. Surface water discharges are subject to the effluent limitations defined in Item 3.1 above. Effluents which recharge groundwater may not themselves be directly subject to effluent limitations. Rather, the quality of groundwater is defined, depending on current or potential uses, which in turn indirectly establishes the effluent limitations for the applied wastewater.

EPA's definition of BPWTT for groundwater discharges considers three cases:

a. groundwater which can potentially be used for a drinking water supply,

b. groundwater which is used for a drinking water supply, and

c. uses other than for a drinking water supply.

In the first two cases, the groundwater quality should not exceed the National Interim Primary Drinking Water Regulations (40 CFR Part 141) for organic and inorganic chemicals. Where the groundwater is presently used for drinking water, the groundwater should also satisfy the microbiological contaminent levels of these regulations. The groundwater quality for other uses is to be established jointly by the State and EPA on a case-by-case basis.

b. design capacity, existing flows, characteristics of wastes, and overloaded conditions;

c. location and description of major industrial discharges;

d. significantly developed areas served by onsite systems;

e. an analysis of average, peak, and wet weather flows (also see Item 4.3 below);

f. location of all bypasses and overflows;

g. extent of combined sewers;

h. treatment plant performance compared with the NPDES permit;

i. operation and maintenance (O&M) program (compare with operating reports submitted to the State);

j. the effects of I/I (see Item 4.3 below); and

k. documentation of problems with onsite systems (see Section 2.2 above).

Re: 40 CFR 35.2030(b)(3)(iii)

4.3 Infiltration and Inflow

Purpose:

The facilities plan must demonstrate that each existing sewer system discharging into the proposed treatment works project is not or will not be subject to excessive I/I.

Discussion:

I/I represents extraneous flow. If I/I is discharged into a treatment works, it utilizes capacity in sewer lines and the treatment plant, dilutes the wastewater, requires electrical power for pumping and treatment, and otherwise increases the cost of transport and treatment of wastes. Infiltration is generally groundwater which leaks into the sewer system through defective joints, house connections, defective manhole connections or broken sewer lines. Inflow is generally related to storm events, and may result from cross connections with storm sewers, illegal connections from down spouts, area drains, sump pumps, flooded manholes, etc. Infiltration tends to be an average phenomena, which varies during the year according to the fluctuations in groundwater level. Inflow tends to be a peaking phenomena, which varies with the frequency, duration, and intensity of rain storms.

Excessive I/I is defined as the quantities of I/I which can be economically eliminated from a sewer system, as determined in a cost effectiveness analysis that compares the costs for eliminating the I/I from the sewer system to the total costs for transportation and treatment of the I/I.

Earlier EPA construction grants regulations (40 CFR 35.927) were procedurally specific with regard to a determination of excessive I/I. These regulations required a sewer system evaluation consisting of an I/I analysis, followed by a sewer system evaluation survey, if required, and a sewer rehabilitation program. Based on more than ten years of experience, EPA has determined that less procedural specificity is desirable. Current regulations allow considerable flexibility in determining if a sewer system contains excessive I/I. State agencies should work with grant applicants to establish a program for I/I investigations, which is tailored to the unique characteristics of the project.

EPA has also determined that certain screening criteria may be used to determine nonexcessive I/I. Nonexcessive infiltration is defined as the quantity of flow which is less than 120 gallons per capita per day (gpcd), including both domestic base flow and infiltration (7 day average during peak groundwater period and non-storm events), or the quantity of infiltration which cannot be economically and effectively eliminated. Nonexcessive inflow is defined as the rainfall induced peak inflow rate which does not result in chronic operational problems related to hydraulic overloading of the treatment works during storm events, or which does not result in a total flow of more than 275 gallons per per capita per day. Chronic operational problems may include backups, bypasses and overflows. Various studies have found that the domestic base flow and nonexcessive infiltration, plus this inflow rate, is about 275 gpcd for most of the Nation's wastewater treatment systems. Therefore, if a grant applicant's average daily flow during rain storm events is less than 275 gpcd or there are no chronic operational problems, it can generally be assumed that the wastewater treatment system is not subject to excessive inflow.

If a grant applicant can demonstrate that the domestic base flow plus infiltration is less than 120 gpcd and that no chronic operational problems are experienced or the total daily flow does not exceed 275 gpcd during rain events, no further I/I work is required. If the flow rate is not significantly more than 120 gpcd, the grant applicant may proceed, with reviewing agency approval, without further study. However, in this case the allowable project cost will be limited to the cost of a project with a capacity of 120 gpcd for the existing residential population. Any excessive inflow must be identified and eliminated. In addition, the grant applicant must show that the project is cost-effective and sufficient funds are available for the local share of higher costs, including capital and operating costs. If a grant applicant cannot demonstrate these conditions, further I/I investigations will be necessary, as briefly described in the next paragraph. If facilities are planned for the specific storage and/or treatment of inflow, a cost effective analysis shall be required. The criteria described above is equally applicable to excessive infiltration in combined sewers, but inflow is never considered excessive in combined sewers.

In determining if a sewer system contains excessive I/I, the grant applicant will analyze the treatment plant flow records, compare the sewage flows against water consumption records, possibly conduct flow monitoring at selected manholes or pumping stations, and otherwise conduct a field investigation, if necessary, to determine the quantity and source of I/I. The comparison of estimated costs to eliminate portions of the I/I will determine if the I/I is excessive. Where a portion of the I/I is determined to be excessive, the grant applicant must propose a sewer system rehabilitation program to eliminate the excessive I/I. Normally, sewer system rehabilitation is carried out after grant award, and the excessive I/I to be eliminated becomes part of the grantee's project performance standards (see Sections VI.M.5.g and VII.I.2).

The facilities plan includes a demonstration of the nonexistence or possible existence of excessive I/I in the sewer system. Data supporting the conclusion may be contained in or appended to the facilities plan. It is important to note that the results of the I/I investigation are essentially four numbers, namely: the nonexcessive infiltration, nonexcessive inflow and the excessive infiltration (if any) and excessive inflow (if any). Nonexcessive I/I is added to the existing domestic, commercial, and industrial base flow, to establish a total existing flow for the proposed treatment works. Accordingly, the grantee should size the project to include sufficient capacity to transport and treat any existing (nonexcessive) infiltration. This flow is particularly important since after September 30, 1984, construction grants are limited to the capacity required to serve existing needs on the date of grant award (see Section VI.D.18).

Review Procedures:

For grant applicants whose project includes existing sewer systems, insure that the proposed treatment works is not, and will not be, subject to excessive I/I though a determination that:

a. An I/I study has been conducted which identifies the quantity of I/I.

b. Based on the criteria of 120 gpcd for domestic base flow plus infiltration, and 275 gpcd for domestic base flow plus infiltration and peak inflow, it is concluded that:

   i. excessive I/I does not exist, in which case no further study is required; or

   ii. excessive I/I may exist, in which case the grant applicant must either:

      - conduct further study, including a cost effectiveness analysis, to more accurately determine the existence of excessive I/I, and propose a sewer rehabilitation program where appropriate; or

      - propose that the treatment works be designed to accomodate domestic base flow plus infiltration which is not significantly more than 120 gpcd, in which case the allowable project cost will be limited to the cost of a project with a capacity of 120 gpcd.

c. The methods and data used in analyzing I/I are sufficient to support the results and conclusions in Items a and b above.

d. The quantity of nonexcessive I/I has been determined and is used as one component of the average daily base flow.

e. Where a sewer rehabilitation program is proposed, the cost estimates, schedule, and projected results are reasonable, and represent realistic expectations for excessive I/I reductions which can be included in a future grant agreement as part of the project's performance standards. The schedule must provide for completion of sewer rehabilitation no later than one year after project initiation, in order to coincide with completion of the project performance certification (see Section VII.I.2).

Project reviewers may find it helpful to read the "Handbook for Sewer System Evaluation and Rehabilitation," EPA 430/9-75-021 (formerly MCD-19), dated December 1975. While the regulatory and procedural requirements in the Handbook are out of date, the technical discussions and approaches remain valid.

Re: 40 CFR 35.2005(b)(16), (b)(20), (b)(21), (b)(28), and (29); 35.2030(b)(4), 35.2120, 35.2218(c); 40 CFR Part 35, Subpart I, Appendix A, Paragraph G; EPA publication, "Determination of Excessive/Nonexcessive Inflow Rates," May 1984

5. Future Conditions

Future conditions in the planning area are described in order to form a basis for identifying alternative wastewater systems which will solve the water pollution problems. Future conditions are also contrasted with the existing environment in order to evaluate the environmental impacts of the proposed project. In the description of future conditions, the grant applicant should describe unique environmental characteristics of the planning area which must be protected, and suggest mitigation measures which may be employed to minimize adverse impacts. Where appropriate, the description should also include an analysis of the potential open space and recreation opportunities associated with the project.

The following sections describe several significant considerations which are representative of future conditions.

Re: 40 CFR 35.2030(b)(1), (b)(3)(ii), and (b)(5)

5.1 Planning Period

The cost effectiveness analysis, which is the core of facilities planning, includes the evaluation of alternative wastewater systems designed to solve the water pollution problems. The planning period for the cost-effectiveness analysis is 20 years. Therefore, future projections must be based on a 20 year planning period.

The planning period is distinguished from the project's design life and the useful life of the project and its components. Design life is the period for which a treatment works is planned and designed to be operated. Useful life is the period of time during which a treatment works or a component of a waste treatment management system operates.

The distinction between the planning period and the design life of a project becomes important during facilities planning. A grant applicant must consider needs and compare alternatives based on a 20 year planning period. However, in some circumstances the project's design life may be for a shorter period, based on the results of the cost effectiveness analysis, the community's financial and managerial capability, projected environmental impacts, or uncertainty surrounding population or economic growth forecasts. In these cases, staging or construction may be more financially and environmentally sound. However, each stage must be a part of the final 20 year facility and not an interim facility. In other cases, such as the upgrading of an existing treatment plant with no projected growth in the planning area, existing needs may correspond with the 20 year planning period and the project's design life.

The distinction between the design and the useful life may also be significant when reviewing the cost effectiveness analysis and the user charge (UC) system. As a part of the cost effectiveness analysis, the cost of each alternative and its major components are estimated. Some components may be estimated to have a 40 year useful life (e.g., concrete structure) while others may be estimated to have a 15 to 20 year useful life (e.g., process equipment). Land, on the other hand, has an indefinite life. As alternatives are evaluated, the salvage value of the treatment works and its major components are computed. Also, replacement costs for process equipment during the planning period must be considered in the cost effectiveness analysis.

6.9 Innovative and Alternative Technologies

Facilities planning initiated after September 30, 1984 must include evaluation of I/A treatment processes. I/A technologies provide inherent incentives, since they offer an opportunity to conserve energy or resources, and to reduce costs. To encourage serious consideration of I/A technologies, the CWA provides additional incentives which include:

a. 20 percent increased grant assistance, not to exceed a total Federal share of 85 percent, with funds reserved from the State's annual allotment to be used exclusively for the increase in grant assistance (see Section II.E.4.c);

b. a separate grant for field testing I/A projects (see Section VI.I);

c. potential higher ranking, at the State's option, on the State's project priority list (see Section II.E.3);

d. 15 percent cost preference for I/A projects when comparing the total present worth costs to the cost of conventional treatment processes (see Section 7.1.g below); and

e. 100 percent modification or replacement (M/R) grant for I/A projects which fail within two years after the initiation of operation (see Section VI.J).

In reviewing I/A technologies evaluated by the grant applicant in the facilities plan, the project reviewer is to insure that the grant applicant has given proper credit to the I/A incentives in comparing various wastewater alternatives. The project reviewer may also wish to read EPA publication 430/9-78-009 (formerly MCD-53), "Innovative and Alternative Technology Assessment Manual," dated February 1980. While this publication does not reflect current grant regulations, the discussions will provide the project reviewer with a better technical understanding of the subject.

In addition, each EPA Regional Office and most State agencies have designated one person as the I/A coordinator. This person will provide assistance in reviewing the I/A sections of a facilities plan, and will provide liason when contacting the Small Alternative Wastewater Technology Clearinghouse at West Virginia University, or the technical support group at EPA's Municipal Environmental Research Laboratory in Cincinnati, Ohio. Also, to avoid recurrent funding of poorly performing I/A technologies, project reviewers should have current information on the status of 100% M/R activities. (See §VI-J).

Re: 40 CFR 35.2030(b)(3), 35.2032, 35.2040(e), 35.2152(b)

6.10 Alternative Technologies

Alternative technologies are defined in the regulations as "proven wastewater treatment processes and techniques which provide for the reclaiming and reuse of water, productively recycle wastewater constituents, or otherwise eliminate the discharge of pollutants, or recover energy." The regulations further define alternative technology as specific forms of treatment or unit processes as follows:

a. Effluent Treatment

i. land application (rapid infiltration, slow rate irrigation, and overland flow);

ii. aquifer recharge;

iii. aquaculture;

iv. direct reuse (nonpotable);

v. horticulture;

vi. revegetation of disturbed lands;

vii. containment ponds; and

viii. preapplication treatment and storage of treated effluent prior to land treatment.

e. cost reduction must be in the range of 15 percent, and net primary energy reduction in the range of 20 percent;

f. where the risk of a promising technology is relatively high, field testing of the technology, either under a grant or as an allowable preaward cost, must be used to further evaluate the proposed project (see Section VI.I); and

g. where applicable, the I/A cost preference must be properly applied to the project (see Item 7.1.g below).

Re: 40 CFR 35.2005(b)(14), (b)(17), (b)(23), 35.2030(b)(3), 35.2032, 35.2040(e), 35.2118(a)(1), 35.2211, 35.2262

6.13 Sludge Management

Purpose:

Use and disposal of sludge in a cost effective manner, while avoiding adverse impacts on public health and the environment. EPA actively promotes management practices which provide for the beneficial use of sludge, as stated in the policy on municipal sludge management (49 FR 24358, June 12, 1984).

Discussion:

Sludge management must be evaluated and planned with as much care as the wastewater treatment process. Many sludge treatment, utilization and disposal methods are available for evaluation. In general, these methods can be considered in two major categories:

- treatment and volume reduction:
    - incineration,
    - digestion,
    - composting, and
    - surface impoundments;
- ultimate utilization and disposal:
    - landfill,
    - ocean dumping,

- land spreading, and
- distribution/marketing.

Some methods of sludge treatment, utilization and disposal may not be feasible, by virtue of a project's size or location, (e.g., incineration for a small community). Sludge treatment, utilization and disposal is subject to Section 405 of the Clean Water Act and may also be subject to other Federal laws such as the Clean Air Act (stack emissions from thermal reduction methods) or the Resource Conservation and Recovery Act (RCRA) (hazardous and non-hazardous wastes).

Domestic sewage sludge is not listed as a hazardous waste under RCRA. However, specific municipal sewage sludges will be considered hazardous if they exhibit any one of the four characteristics of hazardous wastes -- ignitability, corrosivity, reactivity, and toxicity (see 261.21 through 261.24). In general, the characteristic most likely to cause sewage sludges to be hazardous is toxicity. Since grant applicants must develop pretreatment programs (see Section E.2 below), it is reasonable to assume that commercial/industrial wastes which may cause the grantee's sludge to be considered hazardous will not be discharged into the sewer system. Under RCRA, wastewater treatment authorities have the responsibility to determine whether or not their sludge is hazardous. If the wastewater treatment authority (grantee) suspects that commercial or industrial discharges to its sewerage system may cause its sludge to be classified as hazardous, it is responsible for the appropriate testing of its sludge. If the testing indicates the sludge is hazardous, the generation, treatment, storage, and disposal of the grantee's sludge is subject to the RCRA subtitle C regulations (see 260 through 270).

Some of the intermediate sludge treatment processes or ultimate sludge utilization and disposal methods are encouraged by the CWA, and are defined as alternative technology (see Item 6.9 above). The discussion below briefly describes these alternative technology unit processes and disposal methods, highlighting some important considerations for review:

- the grant applicant has given appropriate consideration to sludge treatment, utilization and disposal by evaluating several alternatives;

- alternatives evaluated by the grant applicant are appropriate to the size and location of the project;

- serious consideration has been given to sludge treatment and disposal methods which recycle or reclaim sludge (alternative technologies) such as methane recovery, self-sustaining incineration, and land application;

- proposed sludge treatment, utilization and disposal methods comply with applicable local, State and Federal requirements including those under the Clean Water Act, the Clean Air Act, the Resource Conservation and Recovery Act and the Marine Protection Research and Sanctuaries Act; and

- where applicable, the I/A cost preference has been properly applied to the project (see Item 7.1.g below).

Re: 40 CFR 35.2030(b)(3), 35.2032, 35.2040(e), 35.2152(b) and 40 CFR 257

6.14 Identification of Principal Alternatives

Purpose:

After identifying and evaluating feasible alternatives, systematically screen them to identify principal alternatives capable of meeting Federal, State, and local requirements.

Discussion:

Ideally, the principal alternatives identified by the grant applicant will include one or more conventional concepts of treatment, one alternative technology and one project proposed as innovative. While there is no prescribed methodology or procedure for screening alternatives, one possible method employs monetary evaluation, followed by evaluation of environmental impacts, engineering feasibility, public acceptance, and implementability. The monetary evaluation is best considered first, because it tends to be more quantitive than the other criteria. It is to be noted that neither EPA regulations nor policy guidance suggests that one criterion is more important than others in selecting the proposed project. However, EPA policy does require that the grant applicant give careful consideration to the financial impact of the project upon the community, to insure that the project is affordable (see Item 8.2 below).

In preparing preliminary cost estimates for each alternative, the grant applicant may use published cost estimating techniques found in the literature, or the grant applicant's engineer may generate unique estimates to reflect local conditions. Another cost estimating technique, recommended for use by grant applicants and available to States for comparison purposes, is the Computer Assisted Procedure for Design and Evaluation of Wastewater Treatment Systems (CAPDET). Available from the CAPDET Clearinghouse at Mississippi State University, this computer program can be used to quickly analyze the costs of a large number of alternatives. CAPDET can also evaluate the cost of upgrading and expanding wastewater treatment facilities, and can rank alternative treatment systems by the present worth of capital and OM&R (including energy) costs.

Using the preliminary cost estimates, the grant applicant can apply the remaining criteria, considering factors described in Item 7 below.

The primary difference between screening feasible alternatives and analyzing principal alternatives is the depth and level of detail. Principal alternatives are to undergo a thorough cost effectiveness analysis, although the level of detail in the analysis will depend on the size and complexity of the project.

Review Procedures:

As feasible alternatives are screened for selection of principal alternatives worthy of a more detailed analysis, insure that the grant applicant has:

- use of project roadway for access to waterways for canoeing, boating, fishing, or swimming;
- provision for access to natural and historic areas for camping, photography, or nature appreciation;
- use of project site for sports such as target shooting, archery, or field sports;
- use of onsite facilities for educational purposes; and
- use of effluent or sludge at onsite locations to improve other recreational areas.

Re: 40 CFR 35.2030(b)(5)

f. Disinfection

The facilities plan should evaluate the need for processes capable of providing disinfection. Disinfection of wastewater prior to discharge has long been practiced, and in many cases is required by State design standards to protect public health. Chlorination of effluent has been and continues to be the most widely used method of disinfection. Because of the potential toxic effects of chlorination on aquatic wildlife, chlorination plus dechlorination or alternate disinfection methods (e.g., azonation, ultraviolet radiation, etc.) should be evaluated in the facilities plan for environmentally sensitive areas. If disinfection requirements are not stated in the NPDES permit, they should be addressed during facilities planning and resolved in accordance with State design requirements.

g. Process Complexity

The treatment process selected for the proposed project should be appropriate to the size of the community and the community's ability to attract and retain qualified operating personnel. For example, a sophisticated activated sludge process requiring complex monitoring and control would usually be inappropriate for a small community.

7.3 Environmental Impacts

An evaluation of environmental impacts is the third criterion used in the analysis of principal alternatives and project selection. The grant applicant is to include within the facilities plan an environmental information document (EID). While the EID need not be a separate document, the environmental information and each alternative's environmental impacts are usually described in a separate chapter of the facilities plan. The EID addresses the environmental issues described in 40 CFR Part 6. These regulations not only describe the NEPA requirements, but also include the requirements of other Federal laws and executive orders (e.g., protection of wetlands and coastal zones).

An adequate environmental evaluation considers the short and long term, direct and indirect, beneficial and adverse impacts of each alternative. Environmental impacts are evaluated during the development of alternatives, the screening of alternatives, and the analysis of principal alternatives.

After completing the review of a facilities plan, the project reviewer is to prepare an environmental assessment of the proposed project. The environmental assessment may result in a FONSI, or a recommendation for the preparation of an environmental impact statement (EIS). The project reviewer may wish to review the detailed environmental considerations which are described in Section D below, to insure that during the evaluation of principal alternatives, the grant applicant has considered all significant environmental issues.

Re: 40 CFR 35.2030(b)(6)

7.4 Public Involvement

Public involvement is the fourth criterion used in the evaluation of principal alternatives. Open discussion and public involvement during facilities planning can help a grant applicant develop a project that reflects the needs and values of the community. Informing the public of the scope of facilities planning at an early stage and involving them during the development and evaluation of alternatives, can help identify issues to be addressed and resolved. EPA is fully committed to public participation in all of its programs, and has published detailed regulations (40 CFR Part 25) which contain Agency-wide requirements for public involvement. Specific instructions regarding the timing of certain public participation activities for construction grant projects are set forth in the Agency's NEPA regulations (40 CFR 6.513). However, because the elimination of Step 1 and 2 grants effectively prohibits EPA financial involvement in facilities planning and design, the requirements of 40 CFR Parts 6 and 25 do not apply to the activities of a potential grant applicant prior to the submission of a grant application. Nevertheless, grant applicants whose projects are being evaluated to determine compliance with NEPA are required to involve the public in the environmental review process, in accordance with both 40 CFR Part 25 and 40 CFR 6.513.

An application for grant assistance submitted to EPA, in addition to the public participation activities required by §6.513, must contain a certification from the State that there has been adequate public participation on the part of the grant applicant, based on State or local statutes. Some States, lacking specific State or local statutes, have elected to require compliance by the grant applicants with 40 CFR Part 25. Project reviewers are to be familiar with applicable State or local statutes concerning public participation, insure that the grant applicant has involved the public during the preparation of the facilities plan, and that the facilities plan reflects the results of those requirements. The extent of public involvement is to be described in the facilities plan in sufficient detail to allow the State agency to certify to EPA that there has been adequate public participation.

Re: 40 CFR 6.400, 6.513, 35.2030(c), 35.2040(b)(2)

7.5 Implementability

Implementability is the fifth criterion used in the evaluation of principal alternatives and project selection. Implementability considers the legal, institutional, financial, and managerial constraints of each alternative, as well as any other aspects of the alternative necessary for design, construction, and successful operation. EPA regulations require that the facilities plan include a concise description of the financial, institutional, and managerial arrangements necessary for successful implementation of the selected project. The project reviewer may wish to review Item 8.2 below to insure that during evaluation of principal alternatives, the grant applicant has considered all significant aspects of project implementation.

Re: 40 CFR 35.2030(a), (b)(3), and (b)(8)(v)

7.6 Plan Selection

After evaluation and comparison of principal alternatives, the grant applicant is to select a project which is the most economical means of meeting the applicable effluent, water quality, and public health requirements over the design life of the facility, while recognizing environmental and other non-monetary considerations.

As in the case of preliminary screening of alternatives, there is no prescribed methodology or procedure for evaluating principal alternatives and selecting the proposed project. Using the criteria described in Items 7.1 through 7.5 above, the grant applicant should be able to identify the cost effective, environmentally sound alternative. Neither EPA regulations nor policy guidance suggest that one criterion is more important than the others in selecting the proposed project. Grant applicants may, therefore, exercise their own value judgements in the weight they assign to each of the criteria. The project reviewer must insure that the reasons for selecting the proposed project and rejecting other principal alternatives are sound, and reflect the requirements of all applicable Federal and State laws. Unless the proposed project or the application of the evaluation criteria violate or misapply Federal and State laws, the project reviewer is not to substitute his judgement for that of the grant applicant.

The project reviewer is to insure that the grant applicant has:

a. evaluated a reasonable number of varied wastewater management techniques;

b. used a logical, systematic methodology which considers costs, environmental impacts, engineering feasibility, public involvement, and implementability; and

3. Recent changes in the construction grants program, such as:

    a. reduced Federal grant share (see Section VI.L.2);

    b. allowances (see Section VI.L.1) and advances of allowance (see Section III.E);

    c. revised definition of secondary treatment or its equivalent (see Section IV.C.3.1);

    d. infiltration/inflow (I/I) limitation (see Section IV.C.4.3);

    e. limitations on the eligibility of reserve capacity (see Section VI.D.18);

    f. project performance certification, including sewer rehabilitation, after one year of operation (see Section VII.I.2.a);

    g. limited eligibility of collection sewers, major sewer system rehabilitation, and combined sewer overflow (CSO) projects (see Section II.E.3).

d. Compliance with facilities plan and FONSI or EIS conditions (see Sections IV.C.8 and IV.D).

e. UC system (see Section E below) and SUO (see Section F below).

f. Requirements for VE studies (see Section D below).

g. Preliminary and final plan of operation (see Section G below).

h. Acquisition of land, rights of way, and easements (see Section VI.H).

i. Intermunicipal service agreements (see Section H below).

j. Service agreements with major industrial users (see Section I below).

k. Additional I/I investigations which may be required (see Section VI.D.16).

l. Pretreatment (see Sections IV.E.2 and VI.E.4).

m. Design features associated with industrial flows (see Section I below).

n. Timing and arrangements for funding the municipal share of project costs (see Section VI.D.4).

C. REVIEW OF PLANS AND SPECIFICATIONS

Purpose:

Insure that the proposed project conforms with the selected alternative in the facilities plan, satisfies State and EPA design criteria and administrative requirements, is biddable and constructible, and will satisfy discharge requirements in accordance with the project's National Pollutant Discharge Elimination (NPDES) or State Pollutant Discharge Elimination System (SPDES) permit.

Discussion:

Contract documents, primarily the plans and specifications, are prepared by an engineer licensed in the State in which the project is to be constructed. In designing the project, the engineer must comply with State design standards, and the enforceable requirements of the Clean Water Act (CWA). The engineer is responsible for employing sound engineering principles, as represented by his seal and signature on the plans and specifications.

The reviewer is responsible for insuring that the project conforms with the selected alternative described in the facilities plan, includes special considerations which were noted in the facilities plan (e.g., mitigation of adverse environmental impacts), and in general meets minimum technical and administrative State and EPA requirements. Ideally, periodic progress reviews should be conducted with the grant applicant and the design team to insure compliance with technical and administrative requirements.

In performing the review of the plans and specifications, the reviewer is to note and call to the attention of the design team, through the grant applicant, any apparant discrepancies with State or EPA requirements (e.g., oversized or unnecessary units, "gold plating," etc.). Reviews should also be conducted with a cost conscious eye; and, items judged not to be reasonably required and necessary for the proper operation and maintenance of the facility and the attainment of effluent limits, or required to mitigate adverse environmental benefits, should be recommended for reevaluation and possible elimination. However, the review and acceptance of the plans and specifications by the State or EPA project reviewer does not relieve the grantee or the design engineer of his legal responsibilities for the overall integrity of the project (see Section J.1.c below).

In addition to reviewing the contract documents for technical and administrative adequacy, the reviewer should note and resolve any possible conflicts that could later result in contractor change orders or claims. The most common conditions resulting in change orders

Design work initiated after May 12, 1982 must satisfy the requirements of 40 CFR Part 35, Subpart I, as described in Section V.C. Where the plans and specifications have been submitted, reviewed, and accepted (i.e., found to be approvable) by the reviewing agency prior to grant application, the reviewer is to verify that the project described in the application agrees with the previously approved plans and specifications.

If the design work was initiated before May 12, 1982 (the effective date of 40 CFR Part 35, Subpart I), the design must satisfy the requirements of 40 CFR Part 35, Subpart E, rather than Subpart I. If the design work was not accomplished under a Step 2 grant (or in rare cases, a Step 2+3 grant which was terminated prior to the initiation of construction), a grant applicant claiming initiation of design work before May 12, 1982, will need to substantiate this claim with appropriate documentation. If design work was initiated prior to May 12, 1982, and meets the requirements of Subpart E, no revisions to the design work will be required solely to satisfy the requirements of Subpart I. However, if considerable time has elapsed since the completion of the design work, this work should be carefully reviewed and updated as necessary, since it may be based on information (e.g., site conditions, availability of construction materials and labor, etc.) which is no longer valid.

In all cases, a current wage rate determination, current labor standards provisions, and all current procurement requirements must be incorporated into the contract documents.

Re: 40 CFR Part 33; 40 CFR 35.2040(b)(5)

6. Project Schedule

Purpose:

Set forth a timetable for key project events, provide for the timely completion of the project, and insure compliance with permit and compliance schedules, court orders, and State enforcement orders.

Discussion:

A project schedule is an important part of the grant application. It is to be reviewed carefully to verify that the grant applicant has anticipated all key project events, including procurement actions, construction initiation, building milestones and completion, implementation of the plan of operation, startup, pretreatment program actions (where needed), engineering supervision during the first year of operation and project certification. Since the date of grant award is not known at the time the grant applicant prepares the schedule, the timetable may be expressed in terms of the number of weeks from the date of grant award.

The project schedule must be carefully reviewed for reasonableness, and may require review and coordination with other sections within the State agency, EPA, or other Federal agencies (e.g., National Pollutant Discharge Elimination System (NPDES) permit section, U.S. Army Corps of Engineers (COE), U.S. Fish and Wildlife Service, etc.). The project schedule forms a part of the grant agreement, and significant changes in the schedule require a formal grant amendment.

Review Procedures:

Review the project schedule to insure that:

a. the schedule includes key project events (e.g., procurement, initiation of construction, building milestones, project completion, startup, certification, etc.), and that the timetable is reasonable, considering the size and complexity of the project;

b. the schedule agrees with other regulatory compliance schedules (e.g., NPDES permits), court orders, and State enforcement orders; and

c. the schedule is coordinated, as appropriate, with the schedule in the draft plan of operation and, where appropriate, with the schedule for the development of a pretreatment program.

Re: 40 CFR 35.2005(35), 35.2040(b)(6), 35.2204(b)(3)

For communities with existing treatment facilities, it will usually be possible for the grant applicant to provide the actual current flow data, based on current records at the treatment plant, adjusted to exclude excessive I/I. Anticipated flows from failing onsite systems may be added to this figure. In the case of communities without an existing centralized treatment plant, existing flow is based on the population presently served by onsite systems which are proposed to be connected to the project. For estimating purposes, a figure of 70 gpcd should usually be used (see Section IV.C.5.6), plus a reasonable allowance for infiltration. In no case, however, may the anticipated domestic flows exceed 120 gpcd, excluding inflow during storm events (see Section IV. C.4.3). Estimates of existing flow must be based on studies which have been updated to the estimated date of grant award.

Once the capacity required to serve the existing needs has been established, it is necessary to determine a cost ratio, using the estimated building cost of the treatment works necessary to serve the existing needs, divided by the estimated building cost for the proposed project. The preferred method for determining the cost ratio involves the use of the Computer Assisted Procedure for Design and Evaluation of Wastewater Treatment Systems (CAPDET). Using CAPDET, design and process parameters are entered into the program, and the estimated cost of building the project is computed. By using the existing needs and the total design capacity, two cost estimates may be produced. The ratio of the cost estimates is applied to the total project cost to determine the allowable cost.

The recommended procedure for determining the cost ratio for sewers and pumping stations is identical to that described above, except that where the existing need could be met by sewers smaller than the minimum size required by the State, the required minimum size (usually 8 inches) will constitute the capacity required to serve the existing needs.

When using CAPDET, it is important to note that while the cost estimates generated by CAPDET may not agree with the design engineer's cost estimates, the ratio of the two CAPDET cost estimates is reasonably accurate and therefore provides a fair method for determining allowable costs. The cost ratio is used to apportion costs for building the treatment works and other associated allowable costs (i.e., construction, contingency allowance, engineering, legal, fiscal, administrative, future change orders, etc.).

The limitation on reserve capacity may have an effect on existing Step 1 and Step 2 projects. Grantees may feel that they are entitled to a grant increase because of the necessity to reevaluate their projects due to these limitations. The criteria discussed in Sections VIII.B.3 and 5 are to be used in determining if a grant increase is warranted.

Review Procedures:

a. Grant assistance awarded after September 30, 1984 must be limited to the capacity required to serve existing needs (including existing needs of residential, commercial, industrial, and other users) on the date of grant award, or on September 30, 1990, whichever is earlier. To establish the eligible project cost:

   i. review the facilities plan to determine if population and/or capacity projections are provided over the 20 year planning period, which will allow a reasonable estimate of the capacity required to serve existing needs;

   ii. insure that the required capacity is reasonable, does not include excessive I/I, is supported by letters of intent from significant industrial users, and has not been distorted, subsequent to facilities plan preparation, by events such as lower-than-expected population or industrial growth, sewer connection restrictions, or development bans;

   iii. in the absence of reasonable data from the facilities plan which allows a determination of the capacity required to serve existing needs, request a facilities planning amendment from the grant applicant which, in the case of existing facilities, should be based on current records at the treatment plant adjusted to exclude excessive I/I, and if appropriate, to include anticipated flows from failing onsite systems which will be connected to the proposed project;

   iv. determine a cost ratio, using the estimated building cost for the capacity required to serve the existing needs, divided by the estimated building cost for the total proposed project, with cost estimates from CAPDET or the sewer cost curves;

vi. a UC system reflective of the system's OM&R costs.

Re: 40 CFR 35.2005(b)(31), (b)(39), and (b)(40), 35.2032(b), 35.2034, 35.2110

2. Marine Discharge Waiver Applicants

Section 301(h) of the CWA allows grant applicants which discharge into marine waters to apply for a waiver from EPA's secondary treatment requirements. The application for the waiver must be accompanied by substantial documentation to support the request. Waiver applications require special reviews and considerations beyond the scope of this Handbook. However, if the marine discharge waiver is approved the project design must include provisions for possible future additions of treatment processes or techniques to meet secondary treatment requirements. Such provisions may include sufficient land for expansion, stubs in piping to allow future connections, arrangement of unit processes or piping to accommodate future processes, etc.

Re: 40 CFR 35.2112; 40 CFR Part 125, Subpart G

3. Innovative or Alternative Technology Reconfirmation

While not specifically required by EPA regulations, the review of the grant application and supporting documents affords an opportunity to reconfirm or revise earlier decisions concerning the classification of a project or project components as I/A technology. In general, a preliminary classification of a project or its components as I/A technology will usually be made on the basis of information contained in the facilities plan. This classification should be confirmed prior to grant award. Refer to Section IV.D.6.9 for a discussion of I/A technology.

4. Pretreatment

A project receiving grant assistance must not include components for the control or removal of pollutants introduced into the treatment works by industrial users, unless the grant applicant is required to remove these same pollutants from wastes introduced by nonindustrial users. An approvable SUO must prohibit the introduction of wastewater into the treatment works which contains toxics or other pollutants in amounts or concentrations that endanger public safety or the physical integrity of the treatment works, cause violations of effluent or water quality limitations, or preclude the selection of the cost effective alternative for wastewater treatment and sludge disposal.

Grant applicants who presently treat or anticipate treating industrial wastewaters should have evaluated the quantity and character of the wastes and, where appropriate, have established a pretreatment program which satisfies the requirements of EPA's pretreatment regulations (40 CFR Part 403), and which will insure compliance with the grantee's NPDES or State Pollutant Discharge Elimination System (SPDES) permit. Refer to Section IV.E.2 for a more extensive discussion of pretreatment.

Review Procedures:

At the time of grant application review, insure that:

a. where applicable, the grant applicant has developed a pretreatment program in accordance with 40 CFR Part 403;

b. estimated project costs associated with pretreatment are allowable for grant participation and necessary for implementation of the pretreatment program;

c. the pretreatment program will insure compliance with the grantee's NPDES or SPDES permit.

d. where applicable, the pretreatment program development schedule is incorporated into the project schedule.

Re: 40 CFR 35.2125(b)(2), 35.2130; 40 CFR Part 35, Subpart I, Appendix A, Paragraph F

5. Force Account

Purpose:

Allow grantees to perform project work using their own employees under certain circumstances.

Discussion:

While generally not encouraged by EPA, grant applicants may use their own employees or equipment for construction or construction related activities (e.g., resident inspection services). This use of in-house forces is frequently called force account work. When

Re: 40 CFR 35.2024(b), 35.2040(f); EPA publication, "Guidance for the Preparation and Review of Applications, Special Fund for Abatement of Combined Sewer Overflow Pollution in Marine Bays and Estuaries (The Marine CSO Fund)," dated January 1984

H. LAND ACQUISITION GRANTS

Purpose:

Provide grant assistance for the acquisition of real property (i.e., land) which will be an integral part of the treatment process or provide for ultimate disposal of residuals and assure grantee compliance with land acquisition regulations for all land acquired for the project.

Discussion:

During facilities planning, the grant applicant will have evaluated various treatment alternatives, including land application of wastewater or sludge, and selected the cost effective alternative. Land associated with the proposed project may already be owned by the applicant, may be available for lease or purchase, or may be available for use without payment. Since most acquisitions are fee simple purchases of eligible land, this section will generally deal with that acquisition method. Other types of acquisitions methods for eligible land (e.g., long-term lease, permanent easements) are also grant eligible and should be considered where appropriate. Regardless of the acquisition method, acquisition must be accomplished in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (The Uniform Act) and EPA's implementing regulations, 40 CFR Part 4. The Uniform Act and regulations are applicable to the acquisition of real property necessary for EPA assisted projects whether or not the land so acquired is eligible for grant assistance. Regardless of the method of acquisition, owners must be fully informed by the grantee, in writing, of their rights under The Uniform Act. After being informed of these rights, landowners may voluntarily waive their right to an appraisal. Such waivers should be in writing and include a statement that the landowner has read and understood the summary of his rights under The Uniform Act.

Arrangements for long-term lease, permanent easement, and use without payment of the treatment site need to be reviewed to insure that they are adequate for the successful construction and operation of the project (e.g., that they are not subject to an expiration or revocation which would prevent the continuing operation of the project).

Acquisition of eligible real property may generally be accomplished in one of three ways under the construction grants program:

- under authorization to proceed as a preaward cost
- under a grant solely for land acquisition, or
- as a part of the grant for the construction of the project.

In any of the above situations, the provisions of 40 CFR Part 4 must be satisfied if the land is to be eligible for grant assistance. 40 CFR Part 4 in essence is separated into two parts:

- requirements for the acquisition of real property, and
- requirements applicable when persons, businesses or farms will be displaced as a result of such acquisition.

In view of the potentially high costs and legal fees associated with land acquisition, grant applicants and reviewing agencies should use personnel experienced in all phases of the acquisition process, including qualified appraisers. The reviewing agency should provide guidance to the grantee in the selection of qualified appraisers. For example, the selected appraiser should: have experience in appraising property similar to the subject property; be familiar with Federal appraisal standards and acceptable procedures; and, preferably, be affiliated with a professional organization. A list of professional appraisal organizations can be found in Appendix G of CG-85. In some areas, other Federal agencies maintain lists of appraisers experienced in appraisal work for Federal projects (e.g., General Services Administration, Corps of Engineers, Housing and Urban Development and Department of Transportation.

Note that revised 40 CFR Part 4 regulations were issued in late February 1986 to be effective in May 1986. Many of the new requirements are incorporated herein. These new requirements are not retroactive.

All appraisals must be reviewed. Review of appraisals must be conducted by a qualified review appraiser who is either under contract to the grantee, or an employee of, or under contract to, a State agency (e.g., transportation department). In some cases, it may be appropriate to use qualified review appraisers working for a Federal agency.

The review procedures below address the highlights of the regulatory requirements, but are not a substitute for a detailed review by professional personnel to insure compliance with 40 CFR Part 4. Eligibility of land acquisition and associated costs is discussed in Section IX.D which should be consulted prior to grant award.

Because few wastewater construction grant projects result in displacement, regulatory requirements and recommended management procedures on this topic are not discussed. Should a displacement problem arise, the land acquisition coordinator in the EPA Regional Office or, as needed, the Office of Municipal Pollution Control and provide assistance.

Re: 4.101, 4.102, 4.103, 4.104, 4.108

Review Procedures:

1. Grant Application Review

In reviewing the grant application, the reviewing agency should determine that:

a. only land required directly for treatment works is determined to be eligible for cost participation;

b. methods less costly than fee-simple acquisition were considered;

c. the proposed acquisition method provides sufficient control for project purposes;

d. the proposed acquisition schedule is realistic; and

e. projected land purchase and 40 CFR Part 4 compliance costs are realistic.

2. Grant Application Contents

A grant application which requests funds for the acquisition of real property must include:

a. all applicable information and documents described in Sections C through E above, except that grant applications solely for the acquisition of real property need not include the information described in Item 2 below;

b. a plat map which includes the legal description of the property to be acquired as well as other land being acquired for project purposes. In addition, the map should differentiate between lots which are fully and partially acquired, (i.e., landholding split by project land acquisition);

c. a preliminary layout of the distribution and drainage system (in lieu of design and specifications if not available, applies to pre Step 3 authorizations/grants only for eligible land purchases);

d. an identification of the interest in real property to be acquired (e.g., fee simple purchase, long-term lease, permanent easement). If available, lease agreements must be included;

e. a copy of the appraisal reports for the property, including a review appraisal if conducted by the grantee;

f. information demonstrating that the project is still cost-effective if land costs significantly exceed estimates in the approved facilities plan;

g. assurances that the property will be used only for the purpose for which it is purchased, and that EPA's interest in the property will be adequately reflected and protected in compliance with all recordation or registration requirements of applicable local laws on real property (see CFR Part 30; Item 3.b and Section M.5 below);

h. information showing funds requested for land purchase separate from those for 40 CFR Part 4 compliance activities; and

i. assurances of compliance with The Uniform Act.

Re: 40 CFR 30.535, 30.600(i), 35.2040(b)
40 CFR Part 4, Subpart B

3. Deferred Provisions

Grant applications which request funds solely for land acquisition need not include information regarding the following items whose submission may be deferred until the award of grant assistance to build the project:

a. debarment and suspension (see Section D.7 above);

b. user charge system (see Section V.E and Section D.17 above);

c. sewer use ordinance (see Section V.F and Section D.17 above);

d. O&M manual payment limitations (see Section IX.B.5);

e. adoption of UC system and SUO (see Sections V.E and V.F, and Section D.17 above); and

f. final design drawings and specifications.

Re: 40 CFR 35.2122, 35.2260, 35.2040

4. Grant Conditions

Grant awards which include the acquisition of eligible real property are to include grant conditions (see Section M.5.d below) stating that:

a. real property must not be acquired until the reviewing agency has determined, based on documentation submitted by the grantee, that the applicable provisions of 40 CFR Part 4 have been or will be met;

b. consistent with 40 CFR Part 30, the Federal interest in the property to be acquired must be protected by the inclusion of the following language in the title or other recordation instrument:

> "Federal lien: Federal grant funds have been used to purchase this property. The United States interest is ______ percent (depending on the Federal share at the time of grant award) of the proceeds from any subsequent sale or current fair market value of the property on the date of the transaction which removes it from the use for which it was purchased. (See 40 CFR 30.535(e), revised on September 30, 1983). A lien to this effect and extent is hereby asserted."

c. all land necessary for the project will be acquired prior to the initiation of construction.

In addition, it is recommended that the grantee provide a land acquisition management schedule indicating key activities and target dates.

Re: 40 CFR 30.535, 35.2210

5. Preaward Costs

Potential grant applicants requesting approval, as a preaward cost, of the acquisition of eligible land or of an option for the purchase of eligible land may receive such approval after completion of the environmental review (see Section D.12). In addition, the reviewing agency should request sufficient information from the applicant, such as that required for grant award in Items 2.b through 2.g above, to insure that grant application requirements will be met for a subsequent grant. The approval letter from the reviewing agency should include notification that the acquisition of real property, to be eligible, must be procured in accordance with the applicable provisions of 40 CFR Parts 4 and 30.

The approval letter should note that these costs will only be reimbursed if a grant is subsequently made and thus does not represent a commitment of funds. Grantees should be advised that certain costs incurred prior to grant award may not be deemed allowable if specific authorization for preaward costs was not obtained. Refer to Section D.15 above for additional warning language to be included in the approval letter. In order to reduce project costs and maintain construction schedules, reviewing agencies may encourage the early acquisition of real property.

Re: 40 CFR 35.2118

6. Project Management

After grant award (or pre-award authorization), the grantee is required to manage its acquisition activities in compliance with 40 CFR Part 4 regulations and submit to the reviewing agency appropriate documentation of such compliance. Reviewing agencies are encouraged to:

a. provide guidance to grantees on their responsibilities to comply with 40 CFR Part 4;

b. provide assistance to grantees in the selection of appraisers and guidance regarding appropriate level of detail and standards for appraisal work;

c. establish procedures for conducting review appraisals;

d. establish minimum standards for project file documentation (e.g., checklists, standard letters);

e. establish procedures to assure that site certificates are submitted and compliance with 40 CFR Part 4 requirements is documented prior to grant reimbursement; and

f. establish procedures for approving amounts of just compensation, requiring updated appraisals when necessary and conducting administrative settlements to approve payments higher than just compensation when negotiated purchase is unsuccessful.

Re: 40 CFR 4.102(d), 4.102(g), 4.102(i), 4.103(b), 4.103(e), 4.103(f), 4.104.

I. INNOVATIVE OR ALTERNATIVE TECHNOLOGY FIELD TESTING GRANTS

Purpose:

Provide grant assistance for field testing of higher risk I/A projects which require verification of design parameters.

Discussion:

Field testing of I/A projects may be accomplished either as a preaward cost (see Section D.15 above) or under a separate grant. Field testing of I/A projects may be requested by the grant applicant, or may be suggested by the reviewing agency. Prior to making a decision concerning I/A field testing, the State I/A coordinator should discuss the proposed project with the EPA Regional I/A coordinator, and if necessary, seek the advice of the I/A support group at EPA's Municipal Environmental Research Laboratory in Cincinnati, Ohio.

Field testing of I/A projects is recommended for higher risk technologies, in order to verify design parameters prior to building the full scale project. Field testing is to be practical and generally small scale, with the objective of verifying performance, refining insufficiently tested design parameters, or resolving technical uncertainties. Considerable professional judgement is required to determine whether the field testing costs represent a reasonable trade-off in comparison with the corresponding risk of failure of the full scale project if field testing is omitted. Project reviewers are encouraged to review the "Innovative and Alternative Technology Assessment Manual" (MCD-53), particularly Chapter 4, when making this judgement. The review procedures below describe the regulatory requirements for I/A field testing projects. Where specific State or EPA Regional procedures have been developed, they should be followed.

Review Procedures:

1. Grant Application

A grant application which requests funds for I/A field testing must include:

a. all applicable information and documents described in Sections C through E above, except that grant applications solely for I/A field testing need not include the information described in Item 2 below; and

b. a field testing plan, which includes:

  i. identification, including size, of all principal components to be tested;

  ii. location of testing facilities in relationship to full scale project location;

  iii. critical design parameters and performance variables that are to be verified as the basis for I/A determinations;

  iv. schedules for construction of field testing facilities and duration of proposed testing;

  v. capital and O&M cost estimate of field testing facilities, with documentation of cost effectiveness of field testing approach; and

  vi. design drawings, process flow diagrams, equipment specifications, and related engineering data and information, sufficient to describe the overall design and proposed performance of the field testing facility.

Re: 40 CFR 35.2040(e)

2. Deferred Provisions

Grant applications which request funds solely for I/A field testing need not include information regarding the following items, whose submission may be deferred until the award of grant assistance to build the approved full scale project:

a. debarment and suspension (see Section D.7 above);

b. draft plan of operation (see Section D.8 above);

c. UC system (see Section V.E, and Section D.17 above);

d. SUO (see Section V.F, and Section D.17 above);

e. O&M manual payment limitations (see Section IX.B.5); and

f. adoption of UC system and SUO (see Section V.E and V.F, and Section D.17 above).

Re: 40 CFR 35.2122, 35,2262

3. Grant Conditions

Grant awards which include I/A field testing are to include grant conditions which require the grantee to submit a quality assurance program and a report which describes the procedure, cost, results, and conclusions of field testing in accordance with the schedule contained in the grant agreement (see Section M.5 below).

Re: 40 CFR 30.302(d)(3), 30.503(f) and (h), 35.2211

4. Preaward Costs

Potential grant applicants requesting approval of I/A field testing as a preaward cost may receive such approval after completion of the environmental review (see Section D.12). The reviewing agency should obtain sufficient information from the applicant, such as that required for grant award in Item 1.b above, to substantiate that the I/A field testing is warranted and is likely to satisfy grant application requirements for a subsequent grant. The approval letter from the reviewing agency should remind the applicant that the procurement of services, supplies, and materials must comply with 40 CFR Parts 30 and 33, and that the acquisition of real property must comply with 40 CFR Parts 4 and 30, if such costs are to be allowable for grant participation. Refer to Section D.15 for additional warning language to be included in the letter.

Re: 40 CFR 35.2118

J. INNOVATIVE OR ALTERNATIVE TECHNOLOGY MODIFICATION OR REPLACEMENT GRANTS

Purpose:

Provide grant assistance to fund 100 percent of the allowable cost of the modification or replacement (M/R) of any project funded with increased funds under the I/A technology provisions of the CWA and the implementing regulations.

Discussion:

The 1977 CWA amendments introduced I/A technology provisions into the construction grants program. The I/A provisions were designed to conserve resources and reduce costs for wastewater treatment projects through the use of new or improved technologies, which are inherently subject to a greater than normal risk of failure. As an incentive for using I/A technology and accepting this higher degree of risk, I/A projects were made eligible for increased grant funding, and for 100 percent M/R grants in the event of failure.

The review procedures below address the regulatory and program guidance provisions applicable to 100 percent M/R grants. It is to be noted that I/A projects which received grant assistance after December 29, 1981 are subject to project performance standards, as required by the 1981 CWA amendments.

The requirements for project performance (40 CFR 35.2218) apply equally to all projects, including those projects where an I/A funded process or unit has been identified as the reason, or part of the reason, preventing the grantee from certifying the project's performance. When a prospective I/A failure is documented under 40 CFR 35.2032(c), grantees are encouraged to independently remedy the problem to prevent such failure through minor modifications such as the corrective action activities described in §35.2218. Where such minor modifications are not successful or possible, the corrective action analysis required by §35.2218 will be an integral element of the documentation of an I/A failure which has occurred within two-years after initiation of operation of the project.

One hundred percent M/R grants must be viewed as a one-time correction for a failed system. For this reason, innovative technologies generally should not be used to modify or replace a failed I/A system.

Review Procedures:

Grant assistance, either as a grant amendment or a new grant, to fund 100 percent of the allowable costs (including planning and design costs) for the M/R of any I/A project, may be awarded only if the reviewing agency determines that:

a. the I/A elements of the project have caused the project, or significant elements of the complete waste treatment system of which the project is a part, to fail to meet the project performance standards;

b. the failure has significantly increased O&M expenditures for the project, or for the complete waste treatment system of which the project is a part, or requires significant additional capital expenditures for corrective action;

c. the failure has occured prior to two years after the initiation of operation of the project; and

d. the failure is not attributable to negligence on the part of any person.

The report or documentation necessary to substantiate the above four items will vary from project to project, and will depend on the extent and nature of the failure and the size, cost and complexity of the project. Projects which satisfy Item a through d above are also required to receive priority certification from the State agency. It should be noted that some alternative technology projects which received increased grant assistance may have included conventional components which also received increased funding (e.g., treatment prior to land application). It is intended that the conventional components receive 100 percent M/R funding only if their failure was caused by an I/A component of the project.

OMPC and WERL are working jointly on a phased assessment and advisory procedure to keep State and EPA regional staff apprised of current developments. Project reviewers should check the status of 100% M/R activities with their local I/A coordinator when reviewing projects with I/A technology components.

Re: 40 CFR 35.2032(c)

K. GRANTS TO STATES FOR ADVANCES OF ALLOWANCE

1. Defining the State Program

Purpose:

Provide financial assistance to small communities which would otherwise be unable to perform planning and/or design work prior to the award of a Step 2+3 or a Step 3 grant.

Discussion:

The 1981 CWA amendments provide for an advance of allowance to certain potential grant applicants. State agencies are to identify small communities, as defined by the State, which would be unable to complete an application for a Step 2+3 or a Step 3 grant (i.e., to perform facilities planning and/or design work) without such an advance. States are also required to reserve a reasonable portion of their annual allotment, up to 10 percent, for advances of allowance, unless this requirement is waived by EPA (see Section II.E.4.e).

The amount of funds provided to potential grant applicants is computed in accordance with 40 CFR Part 35, Subpart I, Appendix B. Note that the maximum amount of the advance is not the allowance, but is the allowance times the appropriate EPA grant percentage (see

Sections L.1 and L.2 below). This advance may be less than this maximum amount, at the discretion of the State. Also note that the allowance is based on the estimated allowable building costs, which do not include other associated Step 3 costs such as engineering, legal, accounting, etc.

Unless the total amount of the advance is small and the work is to be performed in a short period of time (e.g., less than six months), it may be advisable to divide the advance into two or more payments (e.g., one for facilities planning, one at the initiation of design, and the balance when 50 percent of the design work has been completed).

If Step 2+3 or Step 3 grant assistance is subsequently awarded to a community which received an advance, the amount of the advance is subtracted from the grant amount. If Step 2+3 or Step 3 grant assistance is not awarded, the State may seek repayment of the advance on such terms and conditions as the State may determine.

Procedures:

Before applying for a grant for advances of allowance, a State must define the following procedures for the administration of advances of allowance:

a. Qualified Communities

Advances may be made only to small communities, as defined by the State, which would otherwise be unable to perform the necessary planning and/or design work. The State must:

i. define a "small community" (e.g., by population size), and

ii. set objective criteria by which it will determine whether a community would be "otherwise unable to perform" (e.g., by income per capita in relation to the estimated per capita cost of planning and/or design).

Re: 40 CFR 35.2025(b)(3)

2. EPA Grant Share

In computing the EPA grant share, the project reviewer is to examine the applicable conditions noted below to determine the EPA grant percentage, and multiply this percentage by the total allowable project cost (see Item 1.g above). The resulting figure, minus any advance of allowance, is the EPA grant amount.

a. Standard Grant Share

After September 30, 1984 the EPA grant is 55 percent, except as described below.

b. Uniform Lower Federal Share

The Governor of a State may elect to uniformly lower the EPA grant share for all categories of projects. Except for I/A projects, the EPA grant will be the percentage established by the Governor and approved by EPA.

c. Phased or Segmented Projects

These projects are discussed in Section D.10.d above.

d. Projects Using An Innovative or Alternative Technology

The EPA grant share for eligible treatment works or unit processes determined to meet the definition of an I/A technology (including an I/A field testing project) shall be increased by 20 percent of the total allowable cost of the I/A project or the I/A portion of the project, but in no event shall the total Federal share exceed 85 percent. Only I/A components and unique non-I/A components necessary to make the I/A components operate may receive the additional grant percentage. Where a State grant program exists, the State grant percentage of the non-Federal share must not be decreased for an I/A project. For example, assume an EPA standard grant share of 55 percent, a State standard grant share of 10 percent, and a local standard grant share of 35 percent, for a total non-Federal share of 45 percent. The State share of the non-Federal share is 10 divided by 45, or 22.2 percent. For an I/A project, the Federal share is 75 percent and the non-Federal share is 25 percent. The State's proportional contribution must be at least 22.2 percent of the 25 percent non-Federal share (i.e., at least 5.55 percent of the eligible

I/A project cost. This requirement is expected to be met in most States by providing the same State percentage grant to all projects (in this example, 10 percent), but the State percentage grant may be reduced for I/A projects at the discretion of the State, provided that all I/A projects are treated equally, (in this example, to a share not lower than 5.55 percent).

e. Projects for the Modification or Replacement of Failed Innovative or Alternative Technologies

The EPA grant is 100 percent of the allowable cost of the M/R of failed I/A projects, including specific planning and design costs incurred on these projects funded under §35.2032(c), which meet the conditions described in Section J above.

The source of funds for 100% M/R grants can be determined as follows:

- When a failed I/A technology system is being modified or replaced with an innovative or an alternative technology, as a minimum, an amount equal to the uniform Federal share for the State for conventional technology projects (i.e., 55% or a reduced share amount set in accordance with 40 CFR 35.2152(c) must come from the regular portion of the State's allotment (which includes the Governor's discretionary fund). The remaining portion of the grant to bring the Federal share to 100% can come from the I/A set-aside, the regular portion of the allotment or any combination of the two. The "regular portion of the State's allotment" can include the reserve for alternative systems for small communities if the community qualifies.
- When a failed I/A system is being modified or replaced with a conventional technology, the entire grant amount must come from the regular portion of the State's allotment.

f. Other Projects

The EPA grant share does not change because a project receives a Step 2+3, a land acquisition, or a CSO (including a marine CSO) grant. The standard EPA grant share for such projects is 55 percent, unless this percentage is changed as discussed in Items b through e above.

Re: 40 CFR 35.2024(b), 35.2032(c), 35.2109, 35.2152

M. GRANT AWARD PROCEDURES

Detailed grant award procedures may vary from State to State, depending on internal State procedures and the requirements of the State/EPA delegation agreement. Fully delegated States may only need to submit project and priority certifications to EPA (see Items 2 and 3 below), while those States without delegation will need to submit complete application packages. In all cases, however, a grant may only be awarded by EPA. The procedures below are general, and are not a substitute for detailed procedures established in each State and EPA Regional Office.

1. State Procedures

All States have developed internal grant approval procedures which are to be followed prior to submission of the appropriate documentation to EPA. Such procedures usually include:

a. preparation of a one-page project summary for the head of the reviewing agency;

b. preparation of the State Priority Certification (EPA Form 5700-28);

c. preparation of the letter of approval from the State to EPA, including an explanation of any differences between the grant amount requested by the applicant and the grant amount approved by the State;

d. approvals by other offices within the State agency (e.g., compliance, permits, etc.);

e. approval by the State's fiscal office, to verify that funds, including reserves if appropriate (e.g., I/A, small communities), are available;

f. preparation of the grant award input coding sheet for the computerized Grants Information and Control System (GICS); and

g. preparation of a draft grant agreement/amendment (EPA Form 5700-20A), with recommended general and/or special grant conditions (see Items 5 and 6 below).

h. preparation of innovative/alternative (I/A) facility technology file data base entry form OMB No. 2040-0095 for all step 3 and step 2+3 grant awards for I/A projects including 100% modification/replacement and field testing of I/A technology. (See I/A Facility Technology File Data Base Users Manual for sample form).

2. Priority Certification

All States are to review each grant application to verify that it is complete. If the project is listed on the State's project priority list for the current fiscal year and is within the fundable range, the State will complete the State Priority Certification (EPA Form 5700-28) for submission to EPA.

Re: 40 CFR 35.2042(a), 35.2103

3. Project Certification by Delegated States

States which have been delegated authority to manage the construction grants program must submit a written certification to the EPA Regional Office for each project, stating that the applicable Federal requirements, within the scope of authority delegated to the State, have been met. The certification must be supported by documentation retained by the State, which will be made available to EPA upon request.

Upon receiving a certification covering all delegable preaward requirements, EPA must either approve or disapprove the grant within 45 calendar days. If disaproved, EPA will state the reasons and have an additional 45 days to review any subsequent revised submissions. If EPA fails to approve or disapprove within 45 days, the grant shall be deemed approved and EPA must issue the grant agreement to the applicant.

Re: 40 CFR 35.2042(a) and (b)

4. Grant Agreement/Amendment

After receipt, review, and approval of the State certifications and supporting documents, if any, EPA will prepare the Grant Agreement/Amendment (EPA Form 5700-20A) for the Regional Administrator's signature. EPA will also complete the following actions or documents which may already have been prepared (or partially prepared) by the delegated State:

a. briefing memorandum to the EPA Regional Administrator, if required by Regional procedures;

allowance for planning and/or design. After the receipt of bids and the acquisition of eligible land, the costs of building the project are more accurately known, and the grant should be adjusted accordingly. Any grant adjustment requires a formal grant amendment.

a. Building Cost

The sum of all prime contracts and subcontracts (including contracts for the direct purchase of equipment, materials, or supplies by the grantee), plus the cost of approved force account work in lieu of awarding construction contracts, equals the total allowable building cost. If the total allowable building cost is less than the estimates used for grant award, the grant is to be reduced accordingly (see Section IX.C.2). If the total allowable building cost is more than the estimated allowable building cost plus the construction contingency, the grant may be increased (see Section IX.C.1) if the bids are judged reasonable, and sufficient funds are available in the State's allotment (many States maintain a reasonable reserve of grant funds for this purpose). If bids are significantly higher than anticipated, it may be necessary for the grantee to reevaluate its financial capability in light of the higher costs. Also, if bids are significantly higher, it may be appropriate for the grantee to reevaluate the scope of work, or when appropriate, reject all bids and readvertise. This last course of action may only be undertaken in accordance with State law and EPA procurement regulations (see Item 2 above).

b. Construction Contingency

After receipt of bids, the construction contingency is usually reduced to between 2 and 5 percent of the total allowable building costs. The construction contingency is available for unanticipated cost increases (i.e., change orders) during construction. However, as a result of regulations revised in November 1985, for grants awarded on or after February 10, 1986, the maximum allowable project cost is equal to the allowable project costs plus 5% excluding an allowance. For grants awarded prior to that date, see Section IX.C.1.

c. Land Acquisition Cost

Assuming that the requirements of 40 CFR Parts 4 and 30 have been satisfied with regard to the acquisition of eligible land, the grant amount may require adjustment after the actual cost of eligible land and allowable costs of complying with 40 CFR Part 4 are known.

d. Allowance for Planning and/or Design

The final allowance for planning and/or design is determined only once, and is based on the initial allowable award amount of all prime construction contracts. (including contracts for the direct purchase of equipment, materials, and supplies by the grantee), plus the initial amount approved for force account work in lieu of awarding construction contracts, and the purchase price of eligible land. The amount of the allowance does not change, even if the actual building costs increase or decrease during the performance of the work. The final allowance is computed in accordance with 40 CFR Part 35, Subpart I, Appendix B (see Section VI.L.1).

e. Grant Amendment

Any grant adjustment, as determined in Items a through d above, requires the preparation of a formal Grant Agreement/Amendment (EPA Form 5700-20A). States are to verify that sufficient funds are available in the State's allotment, certify the grant amendment and other documents required by the State/EPA delegation agreement, and submit the grant amendment to EPA for approval (see Section VI.M).

Re: 40 CFR 30.700, 35.2204; 40 CFR 35.2205

5. Contract Award

Grantees are to award contracts and issue notices to proceed for building all significant elements of the project as soon as possible, but no later than 12 months, after grant award (see Section IX.F.4, Paragraph A.2.e).

Re: 40 CFR 35.2212

6. Protests

A protest is a written complaint concerning the grantee's solicitation or award of a subagreement, and may be filed with the grantee only by a party with a direct financial interest which has been adversely affected by the grantee's action. Protests may be filed during the procurement of professional services or construction services (including the direct purchase of equipment, materials, and supplies by the grantee), and should normally be submitted to the grantee prior to the closing date for the receipt of proposals or bids.

1. the aggregate amount of any one procurement does not exceed $10,000, or a lower amount established by State or local law;

2. the procurement was not divided into smaller amounts to avoid the dollar limitation for small purchase procurement; and

3. price or rate quotations were obtained and documented from an adequate number of qualified sources.

Re: 40 CFR 33.305, 33.310, 33.315

F. NONCOMPETITIVE NEGOTIATION

Noncompetitive negotiation (i.e., sole source procurement) is the least favored method of procurement, and may only be used if the other three methods of procurement are inappropriate, or where the requirements for continuation of engineering services have been satisfied (see Section C.3.c above). Noncompetitive negotiation for the continuation of engineering services requires the prior written approval of the reviewing agency.

Noncompetitive negotiation may only be used if the other three procurement methods (i.e., competitive bidding, competitive negotiation, and small purchase) are inappropriate because:

1. the item is available only from a single source;

2. a public exigency or emergency exists;

3. after solicitation from a number of sources, competition is inadequate (e.g., after formal advertising, only one responsive and responsible bid is received) (see Section D.1.d above); or

4. the reviewing agency authorizes noncompetitive negotiation for continuation of engineering services (see Section C.3.c above).

Re: 40 CFR 33.605, 33.715

G. MONITORING CONSTRUCTION

Purpose:

Insure that the grantee manages the project in accordance with the commitments made in the grant application and the grant acceptance, and that the project is constructed in accordance with the approved plans, specifications, and change orders.

Discussion:

To insure adequate performance by all equipment vendors and construction contractors, the reviewing agency must provide for sufficient monitoring of construction activities. The reviewing agency's monitoring program should begin with a preconstruction conference, extend through interim construction monitoring activities, and conclude with a final inspection. The extent and frequency of monitoring will depend on the size and complexity of the project, and the needs and performance of the grantee, the resident inspection team, and the construction contractors. The agency performing the monitoring activities will be designated in the State/EPA delegation agreement, with monitoring activities carried out by the State, EPA and/or the U.S. Army Corps of Engineers (COE). In some States, one of these agencies has been given the responsibility for all monitoring activities, while in others, two or all three agencies share this responsibility. Each agency is to follow the detailed monitoring procedures in the State/EPA delegation agreement and/or the EPA/COE interagency agreement.

To assist reviewing agencies in carrying out a thorough and efficient monitoring program, EPA has prepared two guidance documents which include a complete discussion of the specific actions to be undertaken during construction monitoring: "Operating Procedures for Monitoring Construction Activities at Projects Funded under the Environmental Protection Agency's Construction Grants Program," dated September 1983, and "Construction Management Evaluation and Project Management Conference Manual," dated December 1983. The documents should be used in conducting onsite construction monitoring activities. However, reviewing agencies must also maintain off-site (i.e., in the reviewing agency's office) construction monitoring through the review of payment requests, inspection reports, change orders, correspondence, and telephone communications. This information, when compared with the project schedule in the grant agreement, will provide an indication of the adequacy of construction progress, and may form the basis for changing the frequency of onsite monitoring activities. The reviewing agency is to insure that the grantee also submits quarterly reports (EPA Form 6005-1) concerning the use of minority and women's business enterprises (MBE/WBE).

For construction monitoring activities to be effective, it is essential for the monitoring staff to carefully review the project files for factual information prior to conducting onsite monitoring activities, to carefully document all deficiencies observed, to submit completed monitoring reports promptly, and to take follow-up action to insure the correction of all deficiencies. The procedures below briefly highlight the key activities which take place during construction monitoring, but are not intended to be a substitute for the detailed procedures in the two guidance documents discussed above, and in the delegation and interagency agreements.

Procedures:

1. Preconstruction Conference

After the award of construction contracts, the reviewing agency is to insure that the grantee arranges a preconstruction conference. This conference may be conducted separately by the grantee, or in combination with a preconstruction conference conducted by DOL's Equal Employment Opportunity Office (generally conducted only on projects of $1 million or more). Where the reviewing agency plans to conduct a PMC (see Item 2 below), the preconstruction conference should concentrate on construction activities which directly involve the construction contractors. In addition to defining the role of the reviewing agency and establishing procedures and responsibilities for interim inspections, typical items to be clarified during the conference are:

a. points of contact for all parties;

b. lines of authority and responsibility;

c. interrelationships among the grantee, the engineer, the construction contractors, the equipment suppliers, the State, the COE, and the EPA Regional Office;

d. periodic progress meetings;

e. access to the work for interim inspections;

f. insuring adherence to the construction schedule, and notification procedures for excusable delays;

g. flow of documents such as payment requests, change orders, and inspection reports;

h. change order review and approval process;

i. payment process, including development of payment schedules;

j. contractor responsibilities with regard to the project sign, posting of wage rate determinations, compliance with the requirements of DOL's Occupational Safety and Health Administration and the U.S. Equal Employment Opportunity Commission, and compliance with EPA's requirements for MBE/WBE and small business subcontracting;

k. need for adequate documentation of the grantee's procurement procedures and project costs; and

l. EPA and State audit requirements.

When the grantee conducts the preconstruction conference, the reviewing agency should participate and insure that the items listed above are discussed.

2. Project Management Conference

A PMC, which may be held any time between the pre bidding period and initiation of construction, should be conducted on virtually all Step 2+3 and Step 3 projects. The primary purpose of the PMC is to provide detailed guidance to the grantee and the construction management team in overseeing and managing the construction grant. A PMC generally should take one to three days to complete, and can be conducted by either one person or a team, depending on the size and complexity of the project. The points of primary focus are:

a. grant management by the grantee:

   i. regulatory requirements, including procurement procedures and property control;

   ii. adherence to the project schedule;

   - iii. special grant conditions (see Section VI.M.6);
   - iv. resident inspection;
   - v. recordkeeping (both fiscal and correspondence), including the need for adequate documentation of procurement procedures and project costs;
   - vi. project performance certification; and
   - vii. project closeout procedures, including EPA and State audit requirements;

b. construction management activities:

   - i. the engineer's responsibilities and authority, including review of as-built and shop drawings;
   - ii. resident inspection activities, including insuring conformance with the approved plans and specifications, daily logs, and materials testing;
   - iii. insuring adherence to the construction schedule;
   - iv. progress payments; and
   - v. change order procedures.

Re: EPA publication, "Construction Management Evaluation and Project Management Conference Manual," December 1983

3. Interim Inspection

Interim inspections are essential to insure that the grantee, the construction management team, and the construction contractors are fulfilling their respective responsibilities. The frequency of interim inspections should be determined by the size and complexity of the project, the rate of progress being achieved, and the nature of problems or issues arising during construction. Each project should normally be inspected monthly, but where a project is progressing well and the grantee has demonstrated a high level of project management capability, bimonthly or quarterly inspections may suffice. In unusual cases, such as extremely large, complicated, or troublesome projects, weekly or even daily inspections may be necessary. Regular interim inspections may also provide an opportunity to focus on one specific area at a time, such as materials testing, fiscal records, project files, procurement, management of claims and change orders, etc. Using this approach, all significant aspects of grant management should be covered over the life of the project. Where necessary, unannounced interim inspections may also be conducted, based on the findings of earlier inspections or other information brought to the attention of the reviewing agency.

Principal areas of focus during interim inspections typically include:

a. grant management and recordkeeping;

b. compliance with grant and permit conditions;

c. contract administration, including claims and change order management;

d. construction inspection activities and records, including verification of work in place, material testing, and replacement of defective work; and

e. implementation of the plan of operation, including preparation of the O&M manual.

Re: EPA publication, "Operating Procedures for Monitoring Construction Activities at Projects Funded Under the Environmental Protection Agency's Construction Grants Program," September 1983

4. Construction Management Evaluation

A CME is a comprehensive onsite review of the entire project, including all phases of the grantee's and contractor's responsibilities and performance. It is a more formalized inspection procedure than an interim inspection, and differs primarily in the depth, duration, and purpose of the review. A CME typically ranges from 4 to 5 days for a medium sized project, up to 10 days for a large multi-contract project, and is generally conducted when the project is 40 to 60 percent complete (20 to 40 percent if a PMC has not been conducted).

e. all deficiencies noted during interim inspections have been corrected;

f. records are complete and readily available for audit;

g. the user charge (UC) system and sewer use ordinance (SUO) have been enacted by municipal ordinance, and are being implemented and enforced by all participating municipalities;

h. the plan of operation has been implemented, including the hiring and training of all personnel;

i. the O&M manual is complete and usable, and copies are readily available for operating personnel;

j. laboratory facilities are complete, stocked with required supplies, and ready for use in monitoring operations;

k. all change orders have been completed and summarized, and all claims have been satisfactorily resolved;

l. aesthetic features, flow level, and abandoned, unused, or inoperable facilities are noted, for use in preparing the project officer certification (see Section VIII.D.8);

m. a property management system is in place;

n. the title to eligible land includes language which protects the Federal interest in such land (see Sections VI.H.3.b and VI.M.5.d).

o. continuing engineering services during the first year of operation have been procured and are being carried out;

p. final cut-off date for incurring allowable project costs, except for continuing engineering services during the first year of operation, has been established; and

q. any related projects, such as sewer system rehabilitation or other project phases or segments, are on schedule.

Re. 40 CFR 35.2208, 35.2216, 35.2218; EPA publication, "Operating Procedures for Monitoring Construction Activities at Projects Funded under the Environmental Protection Agency's Construction Grants Program" September 1983

H. MANAGEMENT OF CLAIMS AND CHANGE ORDERS

Purpose:

Insure that changes to the original contract documents are necessary, reasonable, and managed in such a way as to maintain the project's integrity, schedule, and costs.

Discussion:

A change order is a written document, issued by the grantee to a contractor, which alters the price, time of completion, or any other requirement of the original contract documents, but does not increase the scope of work of the contract. Change orders may originate from the contractor as a proposal or claim, or may be initiated by the grantee. Historically, the lack of change order management has caused considerable delay, increased costs, and in some cases, lengthy and costly litigation. This section discusses change orders for construction contracts. Change orders for contracts for professional services are discussed in Section C.8 above.

To be eligible for grant participation, the change addressed in the change order must be within the scope of the project. The scope of the project is the work necessary to construct the facility described in the approved facilities plan. If the change is within the scope of the project, but outside the general scope of work of existing contracts on the project, the work required by the change must be procured as a separate contract through formal advertising procedures, (see Section D above), unless the procedures described in Section E or F are appropriate. However, where the work required by the change is within the scope of the project and the general scope of work of an existing contract, i.e., the proposed change is within the "general quantity" of the existing contract and is consistent with the existing contractor's "trade", a change order may be issued to the contractor, and the price of the change negotiated as an equitable adjustment to the contract.

Management of change orders by the grantee and the grantee's construction management team is one of the principal areas of discussion and review during the preconstruction conference and the PMC. Regulatory provisions concerning project changes have been included in all EPA funded projects, and are identified in 40 CFR 33.1030, Paragraphs 3 through 9, for grants awarded on or after May 12, 1982; comparable provisions are included in 40 CFR Part 35, Subpart E, Appendix C-2, for grants awarded prior to May 12, 1982.

It is the reviewing agency's responsibility to insure that the grantee has an operating change order management system in place, and that the grantee reviews and acts upon all change orders promptly. All State agencies, and particularly those with delegation agreements, have developed detailed change order review checklists and reviewing procedures. These established procedures should be followed. In order to prevent costly delays, a strong effort should be made to review all change orders and issue approval/denial decisions promptly.

EPA's guidance document, "Management of Construction Change Orders - A Guide for Grantees," March 1983, includes a chapter entitled "Reviewing Agency Procedures." Review of change orders is also discussed in EPA's "Construction Management Evaluation and Project Management Conference Manual," December 1983.

Procedures:

The procedures discussed below highlight considerations to be taken into account by the grantee in managing claims and change orders, and by the reviewing agency during the processing of change orders:

1. Conditions that May Warrant a Change Order

The six conditions below are those which are most frequently encountered as the basis for a change order. The reviewing agency must carefully evaluate the circumstances surrounding the change and compare the proposed change against the original contract documents, including the plans and specifications. In some cases, the contractor may be entitled to a change order under State contract law, but the change may be ineligible for EPA grant assistance.

a. Differing Site Conditions

When bidding, contractors generally investigate site conditions and review information in the contract documents such as soil boring logs, quantities of rock, depth to groundwater, etc. After initiating construction, if the site conditions significantly differ from those described in the contract documents or differ from those normally encountered in construction, the contractor may be entitled to a change in the contract price. Judgement is required to determine whether the contractor should have anticipated the conditions as a normal risk in bidding the the project.

b. Errors and Omissions

Errors and omissions are usually design or drafting deficiencies in the plans and specifications. Where the error or omission would normally have been included in accurate plans or specifications, and can be added to the contract at approximately the same cost as the work would have cost if included in the original bidding documents, the change order may be considered an allowable cost. If the error or omission results in reconstruction or other additional effort beyond that which would have been required if the work had been included in the original bidding documents, the cost of such additional work will not be allowable. In such cases, the grantee may seek redress from the designer or other responsible parties. See Section IX.F.4, Paragraph A.1.g (2)(i), for an additional discussion of the allowability of the cost of correcting errors and omissions.

c. Regulatory Changes

At times, new laws or regulations are enacted by the local, State, or Federal government requiring retroactive application of new requirements (e.g., revised State water quality or design standards). Where applicable, such statutory or regulatory changes may warrant a change order, which may be considered an allowable cost.

d. Design Changes

A design change is a modification to an existing adequate design. In order to be approved, it should be cost effective and offer a net life cycle savings (i.e., including future O&M costs). Design changes usually originate as proposals from a construction contractor, based on the construction incentive (CI) clause (see Section V.C.l.v). Where a design change other than a CI proposal represents a substitution of equipment or material, care should be exercised to insure that the nonrestrictive specifications or sole source procurement provisions are not violated.

e. Overruns and Underruns

Bids for materials are often based on estimated quantities and unit prices. Actual quantities will usually differ, and the contract price will be adjusted accordingly. However, grant payments for such adjustments may be limited. (See Section IX.C.l.a.) Care must be exercised to insure that quantities are continually monitored and where possible, significant overruns are avoided. Many specifications contain a clause which allows unit prices to be renegotiated if the final quantity differs from the estimated quantity by 15 percent or more. (The term "renegotiated" is traditionally used, even when the original price was bid, rather than negotiated.)

f. Time of Completion

Because of the potential for claims and possible litigation, special care must be exercised in this area. Claims may arise with regard to the time of completion because the contract provides for the assessment of liquidated damages against the contractor if the contract completion date is not met. Liquidated damages assess the contractor a specific dollar amount for each day of delay beyond the contract completion date to cover the grantee's extra costs (see Section IX.F.4, Paragraph A.3.a). However, the contract completion time may be extended for cause (e.g., work added by change orders, unusually adverse weather conditions, etc.) by the grantee, thereby reducing or eliminating the assessment of liquidated damages.

Conditions which may arise with regard to the time of completion include termination (either for convenience or for default), suspension of work, directed acceleration, time extensions or constructive acceleration. Each condition has its own inherent problems, and very often their use will be guided by existing State law.

A change order which merits an extension of the contract completion date must include a provision for an appropriate extension of that completion date. (When no time extension is required, the change order should clearly document that both the grantee and the contractor agree that no extension is needed.) Such changes will usually extend the time of project completion beyond the end of the grant budget period, in which case the change will also require the preparation of a formal grant amendment.

Re: 40 CFR 33.1030; 40 CFR Part 35, Subpart I, Appendix A, Paragraphs A.1.f, A.1.g, and A.2.c.; 40 CFR 35.2205.

2. Claims

When a written demand (voucher, invoice or other request for payment) or a written assertion (seeking money or an adjustment, interpretation or relief from contract terms) is submitted by a contracting party it is NOT a claim. However, when such a request is rejected or otherwise disputed by the recipient, it becomes a claim. If such claims are not addressed promptly and in an objective manner, costs can escalate dramatically, especially if the dispute leads to arbitration or litigation. For this reason, it is imperative that grantees develop and apply management techniques for the avoidance and quick resolution of claims. When a claim is made, the grantee should attempt to resolve the claim as promptly as possible, either by negotiating a change order if warranted, or by notifying the contractor that the claim has been evaluated and found to be without merit.

a. Common Causes

Claims most frequently result from the conditions listed in Item 1 above, and less often from other more unusual circumstances.

b. Prevention

A grantee must insure that good management practices are employed throughout the project cycle, even when tasks are performed by others (e.g., grantee's engineer), since the grantee remains solely responsible for the planning, design, construction, and operation of the treatment works. Specific management techniques that have been shown to prevent or at least minimize the occurence of claims can be found in the "Claims Prevention" section of the EPA publication, "Claims Management Guidance," September 1984. While all of the practices noted in that section are important to know and apply, grantees should be particularly encouraged to follow the practices listed below, which have been found to be critical to a well-managed project:

i. Insure that a fully adequate subsurface investigation is made, and that the results of the investigation are included in the final plans and specifications (see Section V.C.2.cc).

ii. Maintain close management control over the construction project, and act quickly to resolve problems at the time they arise.

iii. Insure that the plans and specifications are biddable and constructible (see Section V.C.3), that all conflicting language has been removed, and that all ambiguities have been clarified prior to advertising for bids.

iv. Specify an adequate construction schedule commensurate with the complexity of the project.

v. Insure that the schedule provisions are enforced, that the schedule is periodically reviewed, and that revisions are made (by change order) whenever circumstances justify the extension of the schedule dates.

c. Resolution

After a claim is filed, the grantee must insure that everything possible is done to address the issues raised, and to mitigate the future costs of the claim. This usually entails making a thorough analysis of each issue raised by the claim, and negotiating a fair and equitable settlement of the meritorious portions of the claim, if any. Grant funding is available for assessment and negotiation costs, but only if prior approval is received from the reviewing agency. A list of good management practices leading to quick and effective resolution of claims may be found in the "Claims Resolution" section of the EPA publication, "Prevention and Resolution of Contractor Claims," March 1985.

d. Allowable Costs

Certain claim related costs are allowable, provided that the proper procedural steps have been followed. However, grant payments for claim costs, except for differing site conditions, cannot exceed the regulation controlling such payments. (See Section IX.C.l.a.) A detailed analysis and explanation of the pertinent regulations may be found in the "Claims Allowability" section of the EPA publication, "Prevention and Resolution of Contractor Claims," March 1985. In summary, the following rules apply:

i. The reasonable costs of independent assessment and negotiation of costs (including legal, technical, and administrative costs) are allowable, but only if prior approval is received from the reviewing agency and certain other conditions, discussed in the "Claims Management Guidance," are met.

ii. Meritorious contractor claims are allowable, provided that all the rules of change order approval have been met, and the costs were not caused by the grantee's mismanagement or vicarious liability for the improper actions of others (see Section IX.F.4, Paragraph A.1.f, A.1.g, and A.2.c).

iii. The reasonable costs (including legal, technical, and administrative costs) of defending against a claim, or of prosecuting a claim to enforce a subagreement, are unallowable unless six specific conditions, discussed in the "Claims Management Guidance," are met, and prior approval is received from the reviewing agency.

A grantee may request technical or legal assistance from the reviewing agency. Such assistance may be provided, but generally is given only after all possible sources of assistance at the local level have been exhausted.

Re: 40 CFR 35.2350; 40 CFR Part 35, Subpart I, Appendix A, Paragraphs A.1.f, A.1.g, and A.2.c; 40 CFR 35.2205; and "Prevention and Resolution of Contractor Claims," March 1985.

3. Prior Approval

Minor changes in the project work, consistent with the objectives of the project and within the scope of the grant agreement, do not require a formal grant amendment. Prior approval by formal grant amendment is required for changes (either by change order or by initiating a new procurement action) which:

a. increase grant funding (i.e., require additional funds beyond that provided in the contingency allowance);

b. transfer the project to another grantee (includes a reorganization which forms a new unit of government to build and/or operate the project);

c. alter the project performance standards;

d. alter the type of wastewater treatment provided by the project;

e. significantly delay or accelerate the project schedule;

f. substantially alter the facilities plan, design drawings and specifications, or the location, size, capacity, or quality of any major part of the project; or

g. require rebudgeting of amounts from one activity to another (e.g., from construction to non-construction activities, from indirect costs to direct costs, from employee training to another cost category, etc.).

Re: 40 CFR 30.700, 30.705, 35.2204

4. Submission

Change orders, other than those involving a formal grant amendment as discussed in Item 3 above, do not have to be submitted to the reviewing agency prior to execution and implementation, regardless of whether or not the grantee has a certified procurement system. However, grantees should be encouraged to submit all change orders to the reviewing agency in a timely manner, since eventually, any cost increases (using part of the contingency allowance) or decreases will have to be reconciled with the existing project grant to determine the final grant amount. Also, it is to the grantees advantage to have allowability of costs determined by the reviewing agency prior to project closeout, to provide a basis for the review of project costs by EPA's Office of the Inspector General (OIG).

Except for grantees whose certified procurement systems include provisions which meet the intent of EPA's change order requirements, all grantees must conduct a cost or pricing analysis for negotiated change orders exceeding a net change of $10,000, (i.e., both additive and deductive changes), with profit negotiated as a separate element of the price, and obtain cost or price data from the contractor using EPA Form 5700-41, or a similar format which provides the same information. The cost or pricing analysis need not be submitted to the reviewing agency, but must be maintained in the grantee's files for review by the reviewing agency if desired.

Re: 40 CFR 33.235, 33.290, 35.2204; 40 CFR Part 33, Appendix A

5. Change Order Review

Prior to change order approval, the reviewing agency is to insure that:

a. Justification of the need for the change order has been documented, and includes an evaluation of alternate ways of achieving the same objective.

b. A comparison has been made between the change order and the approved contract's scope of work, including plans and specifications, and the model change order clauses in the contract documents.

c. A method has been established for determining the price of the change order, and any additional time required for contract completion, including grantee/contractor negotiations, price or cost analysis, and comparison with the engineer's independent estimates.

d. The effect of the change order on other structures and items of equipment (secondary effects), the additional cost of extended engineering inspection services, and the additional O&M costs over the useful life of the project have been determined.

e. The effect of the change order on the quality of the work, including the project performance standards and the capacity of the treatment works, has been determined.

f. The change order will not circumvent EPA's procurement regulations, including the requirement for competitive equipment specifications.

g. A comparison with the reviewing agency's on-site inspection reports has been made.

h. The change order requires prior approval and/or the preparation of a formal grant amendment before implementation.

i. The cost of the change order is allowable for grant participation, or a percentage of the change order is allowable, excluding costs associated with reserve capacity (see Section VI.D.18).

Re: 40 CFR 30.700, 30.705, 33.1030, 35.2050, 35.2204; EPA publication, "Management of Construction Change Orders - A Guide for Grantees," March 1983

I. POST-CONSTRUCTION ACTIVITIES

This section is concerned only with engineering services during the first year of operation and the project performance certification. Section G.5 above discusses the final project inspection. Closeout of projects is discussed in Section VIII.D.

1. Engineering Services during the First Year of Operation

The 1981 CWA amendments require that the grantee procure the services of the engineer or firm that provided engineering services during construction, or the engineer or firm that supervised construction, to assist in operating the project during its first year of operation. The term "construction" includes planning, design, and engineering services during the building of the project, and is not to be confused with the term "building," which includes only Step 3 activities. These terms are defined in 40 CFR 35.2005(b)(8) and (b)(13).

The 1981 CWA amendments use the term "supervise," whereas the regulations use the word "direct," when referring to the services to be provided by the engineer. The word "direct" better reflects the intent of the services, since it does not imply a daily "in charge" presence at the treatment works, nor a role as employee supervisor or chief operator.

a. Scope of Engineering Services

The regulatory requirements for the scope of engineering services during the first year of operation are described in Section C.5.b above. In essence, the engineer is to direct the operation of the treatment works, particularly with regard to problems which develop; revise the O&M manual to reflect actual operating experience; train employees; and provide engineering advice to the grantee as to whether the treatment works is meeting the project performance standards.

The intent of these requirements is that the engineer with the most experience in the planning, design, and building of the project will utilize this expertise to help the grantee insure that the project meets its performance standards. The engineering services will normally include reviewing laboratory procedures, including the frequency and results of tests to control unit process operations; recommending ways to maintain appropriate levels of solids or dissolved oxygen in the aeration tanks; determining the best conditions for the withdrawal of sludge from the digesters; etc.

Engineering services are also required for projects which include only sewers (collection, trunk, and/or interceptors) and pumping stations. Such services will be less extensive than those required for a treatment plant, but will typically include:

i. for pumping stations, periodic site visits to check operations (e.g., to insure that float control mechanisms are operating properly, that pump cycling is the most efficient, that seals are properly maintained and not leaking, etc.);

ii. for sewers, opening and inspecting manholes to observe signs of surcharging or sand deposits; after storms, checking for inflow or flooding; etc. If the project included rehabilitation of sewers to eliminate excessive I/I, the engineering services may also include a limited amount of flow monitoring at sites within the collection system, to supplement flow measurements at the treatment facility.

Engineering services during the first year of operation, therefore, are those necessary to insure the efficient operation of the treatment works project, and are directed toward achieving compliance with the project performance standards. The extent of such services will vary from project to project, depending on the size, type, and complexity of the project and the needs of the grantee's operating staff.

Re: 40 CFR 35.2218(b)

b. Procurement of Services

The scope of work for the engineering contract for inspection and supervision services during the building of the project should also include engineering services during the first year of operation. As an alternative, the grantee may procure the engineering services required for the first year of operation as the construction of the project nears completion. Regardless of the timing of procurement of engineering services, the procurement must be conducted in accordance with 40 CFR Part 33 (see Sections B, C, E, and F above). While a fixed price contract is acceptable, because of uncertainties during the first year, a cost-plus-fixed-fee type contract may be more appropriate.

- effluent discharge limitations and National Pollutant Discharge Elimination System (NPDES) permit number, if issued:
- comments or approvals of relevant State, interstate, regional, and local agencies;
- public participation summary;
- demonstration of the grantee's legal, financial, institutional, and managerial resources;
- resolution adopted by the grantee, accepting the facilities plan;
- statement regarding grantee compliance with the Civil Rights Act of 1964:
- municipal pretreatment program (if required by 40 CFR 35.907);
- estimate of total project costs and customer charges, which include both user charge (UC) rates and debt service costs;
- site availability and cost;
- environmental information document (EID); and
- fulfillment of all grant conditions.

Re: 40 CFR 35.917-1

iii. Facilities Planning Initiated after September 30, 1978

To be considered complete for grant payment purposes, a facilities plan which was initiated after September 30, 1978, must include all of the items described in Item ii above. In addition, each of the following items must be present and complete:

- analysis of innovative or alternative (I/A) treatment processes;
- analysis of net primary energy requirements; and
- description of potential recreational and open space opportunities.

Re: 40 CFR 35.917-1(j)

d. Step 1 Grant Increases

Grant increases may be awarded only to complete work included in the original scope of the grant as identified in the grant agreement, required by 40 CFR 35.917-1, and described in the plan of study. However, if the project is already physically complete, it cannot be "reopened" with a grant amendment for any reason. In addition, an amendment can only be approved if the work proposed will not interfere with bringing the project to physical and administrative completion by the end of Fiscal Year 1987. Examples of items which may warrant a Step 1 increase include:

i. cost overruns on cost-plus-fixed-fee contracts;

ii. archaeological surveys;

iii. sewer system evaluation surveys;

iv. necessary "onsite" studies;

v. higher grant share for the use of an I/A technology (see Section VI.L.2.d);

vi. management plans for sludge and residuals; and

vii. replanning attributable to changes in the CWA or its implementing regulations (e.g., definition of secondary treatment, ocean discharge, revised water quality standards, etc.).

e. Reduction of Work Effort

Grant increases should not be awarded for projects which are unlikely to receive a Step 2+3 or a Step 3 grant award. Where a grant increase is requested for

iii. Require the grantee to perform only the work necessary to complete work in conformance with the applicable regulations and grant conditions.

iv. Prepare a letter to the grantee identifying discrepancies which would have to be corrected if a grant were ever to be awarded in the future.

v. Review the plans and specifications to determine the percentage of the construction work which would be grant eligible, and notify the grantee that only this percentage of the design cost is an eligible Step 2 cost.

vi. Make final payment and administratively complete the project (see Section D.b below).

vii. Request a final audit, if warranted (see Item 6 below).

c. Step 2 Grant Increases

Grant increases may only be made to complete work included in the original scope of the grant. However, if the project is already physically complete, it cannot be "re-opened" with a grant amendment for any reason. In addition, an amendment can only be approved if the work proposed will not interfere with bringing the project to physical and administrative completion by the end of Fiscal Year 1987. Examples of items which may warrant a Step 2 increase include:

i. cost overruns to cost-plus-fixed-fee contracts;

ii. archaeological surveys;

iii. additional environmental studies;

iv. redesign attributable to changes in the CWA and its implementing regulations (e.g., definition of secondary treatment, marine discharge waivers, revised water quality standards, etc.);

v. higher grant share for the use of an I/A technology (see Section VI.L.2.d);

vi. value engineering (VE) studies required by the regulations; and

vii. additional work on UC systems.

d. Reduction of Work Effort

Grant increases should not be awarded for projects which are unlikely to receive a Step 3 grant award. Where a grant increase is requested, the project should be reviewed with the intent of rescoping or reducing the work effort, through one or more of the mechanisms described in Item 1.e above.

3. Delayed Step 1 and Step 2 Projects

A delayed project is any Step 1 or Step 2 project where the work (i.e., facilities planning or preparation of construction drawings and specifications) has been delayed for an excessive period of time, generally for six months or more.

Grantees with delayed Step 1 or Step 2 projects should be notified that they will be expected to complete the scope of work described in the grant agreement. The notification should include a time frame for requiring the grantee to submit a revised project schedule, if one is needed, and a reminder of the FY-87 physical and administrative completion deadline.

4. Termination or Annulment

If a grantee cannot, or will not, meet the conditions of the grant agreement, its grant may be terminated or annuled in accordance with the regulations applicable at the time of grant award. Termination results in a financial settlement, and is reflected in a grant amendment. Annulment results in the repayment to the Federal Government of all funds previously paid to the grantee.

If the regulatory criteria for annulment are not satisfied, the grant may be terminated, based upon the grantee's failure to comply with the terms and conditions of the grant agreement. Negotiation of a termination agreement with the grantee is the preferable method of termination. However, if the grantee refuses to enter into a termination agreement, EPA may unilaterally terminate the grant. Upon termination, EPA must pay the grantee the Federal share of the allowable costs for non-cancelable obligations incurred by the grantee prior to the effective date of termination.

The reviewing agency should use its best judgment in determining the most effective approach for annulling or terminating grants and negotiating termination agreements. All termination agreements should provide assurances that the Federal Government has received full value for the funds expended. Any termination agreement that is negotiated with a grantee must conform to EPA policies, regulations, and guidelines, and must be supported by factual data. All terminations require the concurrence of the Regional Counsel (or, in the case of Headquarters-awarded grants, the Assistant General Counsel for Grants). Additionally, all terminated and annuled grants are subject to audit (see Section E below). After completion of the audit process, these grants are closed out in the same manner as completed grants (see Section D.d below).

Re: For grants awarded prior to October 1, 1983, 40 CFR 30.920, 30.950; for grants awarded after September 30, 1983, 40 CFR 30.903 through 30.905

5. Other Step 1 and Step 2 Projects

The circumstances described in Items 1 through 4 above represent the most common conditions likely to be encountered for Step 1 and Step 2 projects. However, other less common circumstances may arise which do not fall within these categories (e.g., phased, segmented, Step 2+3, large, or complex projects). In these circumstances the reviewing agency must exercise judgement on a case-by-case basis, taking into account the availability of present and future grant funds, the State's priority system, the project's contribution toward improvement in priority water quality areas, and the likelihood of the grantee receiving a Step 2+3 or a Step 3 grant at some future time. As decisions are made for these projects, the integrity of the construction grants program must be maintained, and decisions must not circumvent the intent of the CWA (e.g., planning and design work for new projects should be accomplished under an allowance, not a grant).

6. Final Audit Requests

Before they can be closed out, all Step 1 and Step 2 projects must either be audited or be approved for closeout without an audit. Accordingly, a Step 1 or Step 2 project for which the claimed grant amount (i.e., the Federal share of allowable project costs) exceeds $250,000, and for which a Step 2+3 or a Step 3 grant is not expected to be awarded, should be forwarded to EPA's Office of the Inspector General (OIG) with a request for a final audit. In addition, at the beginning of each month, the reviewing agency should provide the OIG Divisional Office with a list of Step 1 and Step 2 projects for which the claimed grant amount does not exceed $250,000, as is done for Step 2+3 and Step 3 projects. Within 30 days of the receipt of this list, OIG will advise the reviewing agency, in writing, which of these projects will be audited and which can be closed out without an audit.

If a Step 2+3 or a Step 3 grant is expected to be awarded, a final audit for the Step 1 or Step 2 project should not be requested until all work on the Step 2+3 or Step 3 grant has been completed, unless overriding circumstances require an immediate audit.

C. STEP 2+3 AND STEP 3 COMPLETIONS

Purpose:

Complete Step 2+3 and Step 3 grants in a timely manner, in accordance with the project schedule.

Discussion:

All Step 3 grants awarded under 40 CFR Part 35, Subpart I must include a project schedule for key milestones, including the date of building completion and initiation of operation. Step 2+3 and Step 3 grants awarded under 40 CFR Part 35, Subpart E also should have included a project schedule, and although the regulations do not include a specific requirement for key milestones to be included in the schedule, these should have been included as a good management practice. Significant changes to all project schedules must be consistent with the schedule contained in the NPDES permit and, require reviewing agency approval and the preparation of a formal grant amendment (see Section VI.M).

Renewed emphasis is being placed on the timely completion of all Step 2+3 and Step 3 projects in accordance with their project schedules. Timely completion will result in the earliest possible achievement of water quality goals, and will allow projects to be efficiently managed and closed out.

The review procedures below address several problems associated with completing a project and preparing it for audit. The procedure for closing out projects is discussed in Section D.d below.

Review Procedures:

The subjects discussed below are those which have caused extended delays in completing projects. Each project, however, has its own unique characteristics which will require careful selection of the methods used to complete the project.

1. Project Schedule

Grant agreements for all projects must include a project schedule, and work must be accomplished in such a way as to maintain that schedule. Schedules should be reasonable, and must conform with other compliance or enforcement schedules, including those contained in court or State enforcement orders

Requests for significant changes to project schedules must be critically reviewed. Approval cannot be given without coordinating the proposed changes with NPDES permit requirements and with those of other applicable schedules. Significant revisions to project schedules must be accomplished by formal grant amendment. Failure of a grantee to maintain a project schedule may form the basis for grant termination or annulment (see Section B.4 above).

Re: 40 CFR 35.935-11, 35.2040(b)(6), 35.2204, 35,2212, 35.2214, 35.2216; for grants awarded prior to October 1, 1983, 40 CFR 30.345-3, 30.900-1; for grants awarded after September 30, 1983, 40 CFR 30.700

2. Phased or Segmented Projects

One grant condition included in all phased or segmented projects, with the possible exception of very old projects, is a commitment from the grantee to complete the remaining phases or segments in order to make the treatment works, of which the phase or segment is a part, operational and in compliance with the enforceable requirements of the CWA. This commitment includes a schedule specified in the grant agreement, and must be accomplished regardless of whether grant funding is available for the remaining phases or segments. This schedule must also be incorporated into the grantee's NPDES permit.

All phased or segmented projects should be periodically reviewed by the reviewing agency to insure that the grantee is performing according to the schedule. Where this is not the case, and where negotiations with the grantee have failed to accomplish compliance with the schedule, enforcement action or action to initiate grant termination or annulment should be undertaken (see Section B.4 above).

Re: 40 CFR 35.2108, 35.2214

3. Sewer System Rehabilitation

Step 2+3 or Step 3 grant awards may have been made for projects which included both building of treatment facilities and rehabilitation of sewer systems. In some of these cases, the building of treatment facilities was completed, but the grantee was permitted to continue sewer system rehabilitation for a period of time after the treatment facilities became operational. The grant agreement for each of these projects contains a grant condition which requires the grantee to complete the rehabilitation on a schedule contained in the agreement.

A grantee whose project includes sewer system rehabilitation, and whose grant was awarded after December 29, 1981, is required to certify whether or not the project meets its performance standards after one year of operation (see Section VII.I.2.a), including the elimination of excessive I/I through rehabilitation. A grantee whose grant was awarded before December 29, 1981 is not required to certify the project's performance after one year of operation.

Reviewing agencies should periodically review all projects which include sewer system rehabilitation (with special emphasis on pre-1982 projects) to insure that the grantee is performing according to the schedule in the grant agreement. Where this is not the case, and where negotiations with the grantee have failed to accomplish compliance with the schedule, enforcement action or action to terminate or annul the grant should be undertaken (see Section B.4 above).

An alternative action which may be appropriate in some instances is the reduction in the allowable capacity of treatment facilities and interceptors to the equivalent of 120 gallons per capita per day (gpcd), based on the approved and allowable design flow. If this option is considered, care must be exercised that the project remains affordable, meets its NPDES permit requirements, and has received a deviation under the provisions of 40 CFR Part 30 (see Section IX.E).

Re: 40 CFR 35.2214

4. Special Grant Conditions

Many grant agreements contain special grant conditions (i.e., grant conditions unique to the project and beyond the regulatory requirements which apply to all grants). Such conditions may have addressed phased or segmented project completions, a sewer system rehabilitation schedule, enactment of ordinances forbidding connection to certain sewers (e.g., interceptors adjacent to environmentally sensitive or prime agricultural land), etc. (see Section VI.M.6).

Before any project can be completed, the reviewing agency must insure that all grant conditions have been fulfilled, with particular attention given to special grant conditions. Refusal by the grantee to fulfill all grant conditions may form the basis for grant termination or annulment (see Section B.4 above).

Re: 40 CFR 35.2200

D. COMPLETION AND CLOSEOUT PROCESS

Purpose:

Insure that projects are completed on schedule, that all applicable regulations and grant conditions have been satisfied, and that project records are complete and available for audit.

Discussion:

The process of project completion and closeout will include many, if not all, of the items discussed below in the review procedures, which are presented in the order in which events should occur. However, because of unique circumstances surrounding each project, the order of events may vary.

There are four major milestones in the completion and closeout process:

a. Project Completion

A Step 1 project is considered physically complete when the project reviewer determines that the scope of work contained in the grant agreement has been accomplished and is approvable. For projects not expected to receive a

Step 2+3 or a Step 3 grant, a Step 1 project is considered physically complete when it has met the minimum requirements listed in Section B.1.c above.

A Step 2 project is considered physically complete when the plans and specifications are either approved or judged approvable (i.e., accepted) by the reviewing agency. For projects not expected to receive a Step 3 grant, a Step 2 project is considered complete when it has met the minimum requirements listed in Section B.2.b above.

A Step 2+3 or a Step 3 project is considered physically complete when an official final inspection (see Item 1 below) determines that:

i. All but minor components of the project have been completed (e.g., landscaping) in accordance with the approved plans, specifications, and change orders.

ii. The facility is capable of functioning as designed.

iii. All equipment is operational and performing satisfactorily.

iv. Laboratory facilities are complete and available to conduct appropriate tests.

All administrative requirements need not be satisfied at the time of physical completion (e.g., final payment, change order approval, fulfillment of grant conditions).

For Step 1 and Step 2 grants, project completion and physical completion are synonymous. For Step 2+3 and Step 3 grants, project completion, physical completion, and construction completion are synonymous.

b. Administrative Completion

The administrative completion phase includes all activities occurring after physical completion of the project. These activities, which normally occur in the following order, include: completion of minor components, satisfaction of all grant conditions, resolution of all claims, final building payment (excluding payment for engineering services during the first year of operation), completion of engineering services during the first year of operation, grantee's certification that the project meets its performance standards, receipt of the grantee's final grant payment request, and project officer certification. A project is considered administratively complete when a final audit is requested from OIG.

(NOTES: (1) There are many instances where the completion/close-out process can be initiated before final resolution of all claims. Steps in this direction will have to be taken very carefully on a project-by-project basis. In some cases the nature of the claim will prevent any close-out action until after the claim is resolved. However, where the claim is clearly separable from the rest of the grant, and the limits of grant participation can be determined, the reviewing agency needs to deobligate and audit around the claim to more efficiently manage the close-out process.

After it has been determined that the claim is separable, then the grantee should be requested to submit a final payment request contingent on resolution of the claim. Upon receipt of the request, adjust the grant to include an estimate of possible Federal exposure and then the audit procedure can be followed.

It is essential that the reviewing agency makes it absolutely clear to the grantee that the purpose of this action is to implement management steps to facilitate auditing the grant in a timely manner and that a determination of the validity of the claim is not being made. When the claim is resolved, the grantee must then submit a grant amendment request identifying elements of work requested for allowability in accordance with EPA claims guidance. The amended request will then be audited after which time the entire project will be closed out.

Factors critical to making this process work are:

° A careful examination of the nature of the claim to ascertain whether this procedure is applicable; and

° A record of communication to the grantee assuring that the grant will remain open until all claims are resolved.

(2) A project may also be considered administratively complete when it is a segment of a group of projects and ready for audit-but-is not being sent to audit until other segments of that group are also administratively complete.)

c. Audit Process

See Section E below for a detailed discussion of the audit process.

d. Project Closeout

The project closeout phase includes all activities which occur after the completion of the audit process (either the conduct of an audit, or a determination by OIG that the project can be closed out without an audit). The project closeout phase includes the resolution of audit issues and the final financial settlement, if any, with the grantee. A project is considered to be closed out when a final closeout letter has been sent to the grantee.

Review Procedures:

Once the final inspection has been completed (see Item 1 below), and the project has been found to be acceptable, the grantee may submit its final building payment request, for payment of 100 percent of the allowable cost of construction (less any previous payments). However, the grant cannot be closed out until the completion of the first year of operation, the certification by the grantee that the project is meeting its performance standards (see Section VII.I.2.a), the submission of the grantee's final grant payment request, and the submission of the project to to OIG for audit.

Projects are to be managed by reviewing agencies in such a way that project completion and closeout are accomplished as soon as possible. EPA Directive 2750 (April 20, 1984) states that audit resolution must occur within 180 days after completion of the final audit. The Office of Water Accountability System states that closeout is expected to occur within three months of audit resolution. These time based goals also apply to Step 1 and Step 2 closeouts. If a final audit is not required, closeout is expected to occur within six months of project completion.

The items discussed below are primarily post-construction activities, which must be completed before a project can be considered administratively complete. In practically all cases, reviewing agencies have developed checklists to be completed by the project reviewer, and forms to be completed by the grantee, which address these post-construction activities. These procedures, forms, and checklists should be used.

1. Final Inspection

A final inspection is requested by the grantee when building of the project has been completed. The final inspection is generally accomplished within 60 days from the date requested. The final inspection insures that the project is completed in accordance with the approved plans, specifications, and change orders, and that all necessary records are complete and available for audit (see Section VII.G.5). In addition, information is gathered at the final inspection which will allow the preparation, by the reviewing agency, of the project officer certification concerning flow level (75 percent or more of the anticipated initial flow), aesthetic features, and abandoned, unused, or inoperable facilities (see Item 8 below).

At the time of the final inspection, the reviewing agency will usually establish a cut-off date, after which any costs incurred by the grantee are unallowable for grant participation (see Item 2 below).

At times, a grantee may request a final inspection, but when the reviewing agency's inspector arrives at the project site, conditions exist (e.g., unsatisfied grant conditions, lack of flow data on which to base the project officer certification, etc.) which prevent the project from being considered administratively complete. In such cases, the inspection should be conducted, but the grantee should be informed, in writing, of the deficiencies which prevented the conduct of a final inspection, that the inspection which was conducted will be considered an interim inspection, that a final inspection will be rescheduled after the grantee informs the reviewing agency that the deficiencies which prevented the conduct of a final inspection have been corrected, and that the grantee's final grant payment will be withheld until the final inspection has been conducted.

Re: 40 CFR 35.2216

2. Cut-off Date

The establishment of a cut-off date is one of the actions required to ready a project for administrative completion. The basis for a cut-off date is found in the definition of the project's budget period in 40 CFR Part 30, since eligible project costs are limited to those incurred during the budget period. The budget period must start on or after the date of grant award, and must be consistent with the project schedule contained in the grant agreement.

A cut-off date may be established for the entire project or for individual subagreements. The cut-off date is the date by which all work and costs associated with a particular subagreement will have been incurred, and after which work or costs incurred are not allowable for grant participation. In very unusual circumstances it may be necessary to revise a cut-off date, if costs were incurred by the grantee due to circumstances beyond its control. Where a cut-off date is established, the "cut-off" letter to the grantee must clearly document the specific work or subagreement to which the cut-off date applies. This documentation will preclude misunderstandings during audit. For Step 1 and Step 2 projects, the "cut-off" letter should also remind the grantee that, since the 1981 CWA amendments prohibit the award of new Step 1 and Step 2 grants, any future revisions to the completed Step 1 or Step 2 project will have to be performed without EPA assistance.

The cut-off date is generally established at the time of final inspection, and usually with the agreement of the grantee. However, if the grantee will not agree to a cut-off date, the end of the project budget period should be used, since by regulation, no costs can be incurred after the end of the budget period. The cut-off date for all costs (except startup services and engineering services during the first year of operation) will usually coincide with the date of the final inspection, prior to which the grantee will normally have accepted the project from the construction contractor. If a project is essentially complete except for minor punch list items, the reviewing agency and the grantee may agree to a future cut-off date, by which time the contractor will have completed the punch list items.

Another cut-off date which must be established and documented in the project files concerns the termination of services provided by the engineer, including inspection, start-up, and supervision of the first year of operation. This cut-off date will almost always be established as one year after the initiation of operation for the project, to provide for continuing engineering services during the one year project performance period.

Once a cut-off date is established, the grantee should prepare cost summaries (relating to the work for which the cut-off date has been established) for submission to the reviewing agency (see Item 3 below).

Re: 40 CFR 35.2040(b)(6); for grants awarded prior to October 1, 1983, 40 CFR 30.135-6; for grants awarded after September 30, 1983, 40 CFR 30.200

3. Cost Summary and Documentation

The grantee is required to submit cost summaries for all costs incurred during the project. The cost summary for previous Step 1 or Step 2 projects which receive a Step 3 grant should be in the project files and available for audit. Cost summaries must be prepared for all categories of work identified in the grant application and the grant agreement, and typically include costs for:

a. administration,

b. subagreements for building the project,

c. engineering subagreements,

d. force account work,

e. land acquisition,

f. legal services, and

g. accounting services.

Cost summaries should identify the initial costs for each category of work and the final costs, including all change orders and adjustments to cost-plus-fixed-fee type contracts. If not previously submitted with a payment request or reviewed during the final inspection, documentation such as paid invoices or vouchers must be provided to support the cost summaries.

Construction contract cost summaries should be compared with cost data in the project files to verify that all change orders have been reviewed and acted upon by the reviewing agency, and that a final change order adjusting estimated quantities to actual quantities for unit price items is included. Cost summaries for services (e.g., engineering, legal, and accounting) should be compared against the original subagreement to insure that all services have been performed and that claimed costs are in agreement with direct costs, indirect costs, and profit items in the subagreement.

The unused portion of the construction contingency allowance is omitted from final project cost summaries and should be deobligated for use on other projects (see Section IX.C.2).

4. Final Building Payment Request

Processing of payment requests is discussed in Section IX.B. This section addresses only the final building payment. While this payment is referred to as the final building payment, since it represents the last payment for building the project, additional payments will be made during the first year of operation for appropriate engineering services (see Section VII.I.1).

Payments are made to the grantee during the course of the project for costs which have been incurred. When the grantee requests the final building payment, such payment is to be made promptly, and may only be delayed if it is determined that the payment request includes unallowable costs, or if information available or not available to the reviewing agency (e.g., a final inspection report or lack thereof) indicates a previous overpayment, a failure to comply with all grant conditions, or other irregularities.

If the grantee has received any grant related income (e.g., refunds, rebates, credits, etc.) such amounts are to be used to reduce the total project cost, thereby reducing the amount of the grant (see Section IX.B.10). Final payment is based on the cost summaries and supporting documentation discussed in Item 3 above.

Re: 40 CFR 35.2300(a) and (b); for grants awarded prior to October 1, 1983, 40 CFR 30.615-1, 30.620 through 30.620-3, 30.815; for grants awarded after September 30, 1983, 40 CFR 30.400(a) and (b)(3), 30.526, 30.802

5. Property Management

Grantees are required to have a property management system which identifies and traces property through its useful life or until disposal. The property management system must meet the minimum requirements in the regulations, and must include both personal property (e.g., movable equipment) and real property (e.g., land and structures).

Before a project is administratively completed, the reviewing agency must verify that the grantee has a property management system in place. The review of the property management system should take place during project monitoring, and should be completed before the final building payment is made.

Re: For grants awarded prior to October 1, 1983, 40 CFR 30.810 through 30.810-9; for grants awarded after September 30, 1983, 40 CFR 30.530(b), 30.531, 30.532, 30.535, 30.536

6. Completion Delays

Completion delays most often occur where there is an unresolved dispute between the grantee and the construction contractor, resulting in the contractor filing a claim for additional construction costs (see Section VII.H). Projects may not be considered administratively complete until the claim is resolved either through negotiation, arbitration, or litigation. The reviewing agency is to make every effort to assist the grantee in resolving disputes and may, at the grantee's request, provide technical or legal assistance. However, the primary responsibility for resolving disputes rests with the grantee. Costs associated with defense against contractor claims may be allowable for grant participation provided certain limitations are satisfied (see Section IX F.4, Paragraphs A.1.f and A.2.c).

The reviewing agency is to insure that unresolved disputes are settled as quickly and efficiently as possible.

Re: 40 CFR 35.2214, 35.2350

7. Continuing Engineering Services

A grantee which was awarded a Step 2+3 or a Step 3 grant on or after December 29, 1981, is required to retain the engineering firm which was principally responsible for providing engineering services during construction to also provide engineering services during the first year after initiation of operation (see Section VII.I.1). The project may not be considered administratively complete until the grantee affirmatively certifies, after one year of operation, that the project is meeting its performance standards (see Section VII.I.2). During the first year of operation, the engineer will submit invoices and the grantee will prepare payment requests in the routine manner (see Section IX.B.2.b). However, the cut-off date should have already been established as the date at the end of the first year of operation (see Item 2 above). The final grant payment, assuming affirmative certification by the grantee, will be made at the conclusion of the project performance period. However, when the final grant payment request is unjustifiably delayed, the grantee should be notified, in writing (certified mail, return receipt requested) that it should submit the final payment request within 90 days (or a similar reasonable time period), and that, if the final payment request is not received within the specified time, the last payment request will be considered as the final request and remaining unexpended grant funds will be deobligated. Where this action is taken, immediately after the deobligation, normal procedures would be followed in certifying the project and in requesting and resolving the audit.

Re: 40 CFR 35.2216, 35.2218

8. Project Officer Certification

Prior to requesting a final audit, the reviewing agency is to prepare a project officer certification. This certification is to accompany the request for a final audit, and in essence confirm that:

- funds have not been used for unnecessary or unreasonable aesthetic features;
- the flow at the treatment facilities at the time of final inspection was 75 percent or more of the anticipated flow on the date of initiation of operation;
- no facilities constructed with grant funds are unused, abandoned, or inoperable; and
- the project files are complete and contain all relevant documents necessary for the conduct of an audit.

Detailed information on the four primary subjects of the project officer certification is provided below:

a. Aesthetic Features

Aesthetic features must be reasonable and necessary in order to be allowable for grant participation (see Section IX.F.4, Paragraph B.2.a). A determination of the allowability of aesthetic features should have been made during the review of plans and specifications (see Section V.C.2.u). If aesthetic features which were not included in the approved plans, specifications, and change orders are discovered during the final inspection, they will be considered unallowable unless otherwise justified.

Re: 40 CFR Part 35, Subpart I, Appendix A, Paragraph B.2.a

b. Flow Level

Before requesting a final audit, the reviewing agency is to determine whether the treatment facilities (including sewers) are receiving 75 percent or more of the estimated initial flow. If the flow is less than 75 percent, the reviewing agency is to determine the cause, and in preparing the project officer certification, note the exception to the flow level.

c. Abandoned, Unused, or Inoperable Facilities

For purposes of project officer certification, this section deals with observations at the time of final inspection. On-going State programs are required to address abandoned, unused, or inoperable facilities which occur after a project is closed out but before the end of the project's useful life.

If any equipment or facilities are abandoned, unused, or inoperable at the time of final inspection, the project officer is to prepare an explanation of the circumstances, which is to be attached to the project officer certification and forwarded to OIG along with the request for an audit. In such cases, grantees are required to seek redress from other parties (e.g., design engineer, construction contractor, equipment supplier, etc.) responsible for such conditions, and to make every effort to make the facilities useful and operational. Unless justified by the grantee, any abandoned, unused, or inoperable equipment will be considered unallowable for grant participation.

Re: 40 CFR 35.2214

d. Project Files

Project files must be organized to facilitate the location of documents during the project audit, and must contain adequate documentation to support grantee procurement actions and all project costs which have been claimed for grant participation.

9. File Retention

Grantees and their contractors must maintain their project files for a period of three years after final grant payment (i.e., the payment which is made after affirmative certification by the grantee that the project meets its performance standards).

Reviewing agencies will maintain project files for a period of three years after project closeout. At the conclusion of the three year period, project files are to be stored in the U.S. General Services Administration (GSA) Regional Federal Records Center in accordance with EPA/GSA federal records management requirements. Since the construction grants regulations now prohibit the use of grant funds for the replacement of a facility during its design life if the facility was constructed with grant assistance, it will be necessary to store at least part of the project file for the design life of the facility (normally 20 years).

EPA Regional Offices should establish a records tracking system which will facilitate the retrieval and restorage of project files.

Re: For grants awarded prior to October 1, 1983, 40 CFR 30.805; for grants awarded after September 30, 1983, 40 CFR 30.501

E. AUDIT PROCESS

Purpose:

Review grantee records, and if necessary those of its contractors, to determine whether the costs claimed under the EPA grant are reasonable, allowable, and allocable to the grant project; whether the management controls exercised by the grantee were adequate to insure that costs claimed are allowable; and whether the grantee has complied with all EPA regulations (including the appliicable procurement regulations) and grant conditions.

Discussion:

All completed construction grants projects are subject to a final audit. Audits may be conducted by EPA, by private sector or State auditors under contract to EPA, or by another cognizant Federal agency. Audits are generally performed after construction, and where Step 1 and Step 2 grants have been awarded, will include the review of records and costs for all three steps. Audits may also be performed at the conclusion of a Step 1 or Step 2 grant, but generally only in those instances where the project is unlikely to be awarded a Step 3 grant in the near future, or when unusual circumstances warrant an immediate audit.

The decision to conduct a final audit of the grantee's records will depend on the size and complexity of the project, and the amount of grant funds involved. (Audits are not usually conducted where claimed grant funds are $250,000 or less, unless information available to the reviewing agency suggests that a final audit is warranted.)

Historically, two problems arise during audits. The first problem concerns the identification of the regulations and policies which were in effect on the date of grant award, since audits may take place anywhere from 5 to 10 years after the initial grant award. In addition, a project which has progressed through the entire three step grant process may have different regulations and policies applicable to each of the three steps. In the case of phased or segmented projects, even more grants will be involved. To identify the regulations and policies in effect on the date of grant award, EPA has published the "Regulation and Policy Matrices - A Guide to the Rules Governing Grants Awarded under the Construction Grants Program," April 1985.

The "Regulation and Policy Matrices" traces the publication of all EPA regulations which have a bearing on procurement and allowable costs, from July 1, 1971 through September 30, 1984, and will be updated periodically. The publication also includes matrices for all

EPA policy memoranda issued since January 1, 1970, as well as the three editions of the Handbook of Procedures, the decisions of the Audit Resolution Board, and the decisions of the Board of Assistance Appeals. Wherever a question arises concerning regulations or policies in effect on the date of grant award, the "Regulation and Policy Matrices" should be consulted.

The second problem concerns the decision as to whether a particular cost is eligible or allowable under the construction grants program. EPA regulations, policy memoranda, and the Handbook of Procedures have, over the years, provided guidance for decisions concerning the most common allowable costs. However, by the very nature and sheer number of construction grant projects, it is not possible to anticipate all possible situations concerning allowable costs. Therefore, in those "gray" areas where such costs are not clearly defined in the applicable regulations or EPA policy documents, construction grants personnel are responsible for making such decisions. These decisions, and the rationale behind them, should be documented in the project files, to prevent misunderstandings at the time of audit.

Such documentation should explain the rationale for the decision and cite the specific regulation or policy which provided the broad or similar framework for the decision. Similarly, if an auditor takes exception to a cost not otherwise clearly defined in the regulations or EPA policies as allowable, such exception should also cite the specific regulation or policy which provides the broad or similar framework for the exception. By the proper use of the "Regulation and Policy Matrices" to identify applicable regulations and policies, and by the proper documentation and citation of specific regulations or policies, projects can be completed and closed out with a minimum of delay.

Final EPA decisions concerning allowable costs may be decided by the Audit Resolution Board if a difference of opinion cannot be resolved between OIG and the construction grants program.

The procedures below outline the major activities of the auditors, grantees, and construction grants staff in the audit process.

Procedures:

1. Request for Final Audit

After preparation of the project officer certification (see Section D.8 above), the reviewing agency will request an audit (or a determination that the project can be closed out without an audit) from OIG. This is the last action for administratively completing a project, and is requested when all of the following conditions have been met:

a. Construction is complete (see Section D.a above).

b. All administrative requirements have been satisfied (see Section D.b above).

c. The final inspection has been performed (see Section D.1 above).

d. The plan of operation has been implemented, or for projects awarded after December 29, 1981, the project performance certification has been received (see Section VII.I.2.a).

e. The "cut-off" letter has been issued to the grantee (see Section D.2 above).

f. The final grant payment has been requested (see Section IX.B.7).

The criteria for selecting projects to be audited (and for determining which projects can be closed out without an audit) are discussed in Section B.6 above.

2. Audit

Unless the OIG Divisional Office has determined that the project can be closed out without an audit, the cognizant audit agency will conduct an onsite audit of the grantee's records, followed by the preparation of a draft audit report. At the completion of the onsite audit, the auditor will conduct an exit interview with the grantee, and will provide an opportunity for the grantee to furnish additional documentation supporting any costs which have been questioned or set aside by the auditor (i.e., identified as unallowable for grant participation).

3. Draft Audit Report

The auditor will prepare a draft audit report for distribution to both the reviewing agency and the grantee. Where audit exceptions are noted, the specific regulation or policy which forms the basis for the exception is to be cited.

Upon receipt of the draft audit report, the project officer should review the findings and respond to the auditing office on those findings which appear to be incorrect. At the same time, the project officer should ensure that the grantee has also received a copy of the audit report and, as appropriate, the grantee also sends written comments to the auditing office on matters of issue.

4. Final Audit Report

After evaluating all comments received on the draft audit report, the auditor will prepare the final audit report for distribution to the grantee and the reviewing agency.

When the reviewing agency is in full accord with the audit findings, it sends a final determination letter to the grantee indicating that the final audit has been conducted and that any funds due and payable to the U.S. Government must be paid. The letter will also indicate that the grantee has certain rights under Subpart L of the grant regulations to dispute any statements made in the audit and that dispute should be filed within a 30 day period from the date of the final determination letter. (See Section IX.D.).

Where a final determination differs from the auditors findings, the reviewing agency must address each finding or recommendation (this includes both questioned and set aside costs) either in the final determination letter or in separate correspondence to the Divisional Inspector General for Audit (DIGA), including references to supporting documentation, legal basis and/or precedent. If the total questioned costs in the audit report are:

(1) equal to or exceed $100,000, the final determination letter must receive DIGA concurrence. The DIGA has 15 days to act. During that period, the DIGA can (a) concur, (b) allow the period to elapse after which concurrence is automatic, (c) attempt to resolve any differences with the reviewing agency or, (4) elevate the problem to Office of the Assistant Inspector General for Audit's (OAIGA). The OAIGA has 45 days to resolve the issue with the Headquarters program office. If resolution has not happended in that period it may be elevated to the Audit Resolution Board (ARB). If it is not raised to the ARB, it is considered resolved.

(2) less than 100,000, the final determination letter must be issued within 150 days of the final audit

report date. The DIGA will advise the reviewing agency of issues where disagreement occurred on final determination letters not requiring concurrence.

In the absence of an appeal by the grantee under the disputes provisions of the regulations or by the OIG to the ARB, the project is then closed out, and the files are retained by the reviewing agency and subsequently shipped to the Federal Records Center (see Section D.9 above).

5. Resolution of Audit Exceptions

Audit exceptions, if any, are to be resolved between the reviewing agency and the auditors at the lowest possible level. The grantee should be involved in the resolution process, since the grantee's financial interests are involved. Decisions concerning the allowability of costs which are not clearly defined in regulation or policy (i.e., fall into the "gray" area) should have been previously made and documented by the construction grants staff.

6. Review of Final Determination

If the grantee disagrees with the decision of the reviewing agency (other than a decision by the Audit Resolution Board), it may file a request for review of the decision in accordance with 40 CFR Part 30, Subpart L. (The procedures in Subpart L are applicable after September 30, 1983, regardless of when EPA awarded grant assistance.)

Unresolved issues arising prior to receiving a final determination letter (based upon an audit) may be appealed by the grantee to the program office level at the State or Regional Office. A Disputes Decision Official's determination (see Section IX.D.) may be appealed to the Regional Administrator. The Regional Administrator's decision is the final agency action, although the grantee may petition the Assistant Administrators for review of the Regional Administrator's decision. However, after receiving a final determination letter, the grantee must appeal directly to the RA and then, if needed, to Headquarters.

7. Recovery of Funds

When the audit reveals an overpayment of grant funds, and where this opinion is sustained in an appeal or other proceedings, the grantee is required to refund the amount of overpayment to the U.S. Treasury.

If the grantee fails to pay what is owed within 30 days after receiving a final decision from a dispute decision official (see Section IX.D.), interest will be assessed on the unpaid debt at a rate established by the U.S. Treasury, even if a review of that decision is requested. However, should, under a review, the amount of the debt be reduced, EPA will refund the interest paid on the amount restored.

Upon repayment, the total grant award is reduced by the principal amount of the overpayment and, the deobligated funds are reallotted to the State's construction grant account. However, the interest portion of the overpayment remains with the U.S. Treasury.

Re: For grants awarded prior to October 1, 1983, 40 CFR 30.815; for grants awarded after September 30, 1983, 40 CFR 30.802 and 30.1230 amended February 21, 1986.

Instead of receiving payments, however, the State can request EPA to assign payment of each advance directly to the small community for which the State has approved an advance. In this latter case, the following procedures must be followed by the State:

i. a separate SF-270 must be used for each community's advance;

ii. the community's name and mailing address must be shown as the payee on the SF-270;

iii. the State's accounting system must treat the advance on an accrual, rather than a cash basis;

iv. the State must execute an agreement with each community, authorizing the State to request EPA to assign payment directly to the community, and must provide a copy of the agreement to EPA;

v. the State must inform the community, in writing, that the advance has been approved; and

vi. the State must enter the approved advance in its accounting system as an obligation of grant funds, prior to submitting the SF-270, requesting reimbursement from EPA for the approved advance.

Re: 40 CFR 30.400(b), 30.405, 35.2025(b), 35.2300(e)

d. Other Grants to States

For State management assistance grants (see Sections I.F and II.E.4.a) and State WQM planning grants (see Sections II.C.4 and II.E.4,d), payments may be made to the State by letter of credit, payment in advance, or reimbursement. Payments may not be assigned to a third party.

Re: 40 CFR 30.400(b), 30.405

9. Grant Overpayment

Grantees must repay interest earned on Federal grant funds. Therefore, if a grantee received overpayments and deposited them in interest-bearing accounts, actual interest or estimated actual interest earned on the funds must be repaid to EPA. But, if a grantee kept its overpayments in an interest-bearing account and can demonstrate that it promptly used them to pay the Federal share of allowable project costs incurred since the date of its most recent payment request so that no interest was earned on the overpayment, then no payment of interest is due EPA.

If overpayments are received but the grantee did not earn interest on them, no interest repayment is due. Overpayments must be repaid to the United States Treasury within 30 days of EPA's final decision that an overpayment has been made. After the 30 day period, EPA may charge interest (or additional interest) on outstanding balances.

Re: 40 CFR 30.400(a), 30.802

10. Grant Related Income

All income received by a grantee as a result of its conduct of the project (e.g., interest on grant funds received from EPA but not paid to contractors, proceeds from the sale of bidding documents, bid bond forfeitures (see Section F.4, Paragraph A.3.b below), refunds, rebates, credits, discounts for prompt payment, reimbursements, etc.) must be returned to the project account. However, liquidated damages collected from a contractor are not considered grant related income (see Section F.4, Paragraph A.3.a below).

Normally, the grantee is not required to make a cash payment, but rather to report the amount of grant related income in the space provided on the SF-270 or SF-271. However, after the final grant payment has been requested, the Federal share of any remaining grant related income must be paid to the United States Treasury, and credited to the State's current allotment.

An exception to this requirement is that interest earned by States and American Indian Tribes is not considered grant related income. Also, income which results from the operation of a wastewater treatment system is not considered grant related income, but is required to be used to offset operation, maintenance, and replacement (OM&R) costs (see Section V.E).

Re: 40 CFR 30.525(b) through (d), 35.2300(b)

11. Grants Information and Control System

Grantee payments are to be entered into the Grants Information and Control System (GICS) by the responsible reviewing agency per State/EPA delegation agreement (see Section III.C.3).

C. GRANT INCREASES AND DECREASES

1. Increases

a. Step 2+3 and Step 3 Grants

Increase requests on these grants most often occur when:

- construction bids exceed estimated building costs,
- quantities for unit price items exceed those estimated in bidding documents, or
- change orders are required (see Section VII.H.1).

Often, minor increases in building costs can be accommodated by the construction contingency allowance. Where this allowance is insufficient to cover cost increases, and where the request for a grant increase is justified and approved, a grant increase may be made if:

i. the grantee's justification for the increase is acceptable under Federal regulations;

ii. the costs are allowable for grant participation;

iii. the costs are for work which is within the existing scope of work of the project (see the "Discussion" portion of Section VII.H);

iv. the increase can be funded from the State's allotment; and

v. the State has certified the increase for grant assistance.

However, for Step 2+3 and Step 3 grants awarded on or after February 10, 1986, increases in the allowable costs of the project will be limited to five (5) percent of the sum of the initial award amount of prime subagreements, the initial amount approved for force account work, the purchase price of eligible real property, and the initial amount approved for other project costs, excluding amounts approved for facilities planning and design allowances. For grants awarded prior to 2/10/86, the 5% limit also applies to contracts awarded after that date -- expect that contracts (on these grants) finally advertised or otherwise awarded before 2/10/86 are NOT subject to the 5% increase limit.

(Note: Costs of equitable adjustments for differing site conditions are exempt from the 5% limitation provided the requirements of Section IX.F.4.A.1.g. and all other applicable laws and regulations have been met.)

Re: 50 FR 218 (November 12, 1985)

b. Step 1 and Step 2 Grants

Grant increases for Step 1 and Step 2 projects are discussed in detail in Sections VIII.B.1.d and VIII.B.2.c. As an alternative to a grant increase for a project which is unlikely to receive a Step 2+3 or a Step 3 grant, a reduction of the current work effort may be preferable. Reductions of work effort for Step 1 and Step 2 grants are discussed in detail in Sections VIII.B.1.e and VIII.B.2.d.

c. Award Procedures

Approval of a grant increase requires preparation of a formal grant amendment. Each State has internal procedures which are to be followed in processing the grant amendment. Grant increases may only be awarded by EPA, and are subject to the requirement for advance Congressional notification. Refer to Section VI.M for a detailed discussion of grant award procedures.

2. Decreases

Grant decreases most often occur when construction bids are less than the estimated contract costs included in the grant application. Grant decreases may also occur at the completion of any project, including Step 1 and Step 2 grants. In most instances, a request for a grant decrease is not made by the grantee, but is initiated by the reviewing agency. Project reviewers are to be alert for legitimate opportunities to reduce grants, since recovered funds, after being returned to EPA, are realloted to the same State for funding other projects on the State's project priority list. Grant decreases require the preparation of a formal grant amendment. Once this amendment has been approved by the Regional Administrator, a copy is sent to the Regional Financial Management Officer who deobligates the funds and, subsequently, arranges for their reallotment to the State. Refer to Section VI.M for a detailed discussion of grant award procedures.

If the claim seeks recovery for the costs of delay, the grantee must demonstrate that the delay impacted activities critical to timely completion (i.e., that the delayed activities affected the critical path for project completion).

h. THE COSTS OF THE SERVICES OF THE PRIME ENGINEER REQUIRED BY §35.2218 DURING THE FIRST YEAR FOLLOWING INITIATION OF OPERATION OF THE PROJECT.

The cost and the scope of these services are to be reasonable and appropriate to the nature, size, and complexity of the project (see Sections VII.C.5.b, VII,I.1, and VIII.D.7, and Paragraph 1.j below).

i. THE COST OF DEVELOPMENT OF A PLAN OF OPERATION INCLUDING AN OPERATION AND MAINTENANCE MANUAL REQUIRED BY §35.2106.

The cost of preparing the draft plan of operation, which is required as part of the grant application package, is not an allowable cost, but is part of the preapplication work which is intended to be defrayed, in part, by the allowance for facilities planning and/or design (see Section VI.D.8).

j. START-UP SERVICES FOR ONSITE TRAINING OF OPERATING PERSONNEL IN OPERATION AND CONTROL OF SPECIFIC TREATMENT PROCESSES, LABORATORY PROCEDURES, AND MAINTENANCE AND RECORDS MANAGEMENT.

While start-up services are an allowable cost, care must be exercised to insure that there is not a duplication of services, and therefore costs, between start-up services and the engineering services to be provided during the first year of operation (see Sections VII.C.5.b, VII.I.1, and VIII.D.7, and Paragraph 1.h above).

k. THE SPECIFIC AND UNIQUE COSTS OF FIELD TESTING AN INNOVATIVE OR ALTERNATIVE PROCESS OR TECHNIQUE, WHICH MAY INCLUDE EQUIPMENT LEASING COSTS, PERSONNEL COSTS, AND UTILITY COSTS NECESSARY FOR CONSTRUCTING, CONDUCTING, AND REPORTING THE RESULTS OF THE FIELD TEST.

It should be noted that normal operation and maintenance costs, as defined in §35.2005(b)(30), are not allowable as construction costs of a field test.

2. UNALLOWABLE COSTS RELATED TO SUBAGREEMENTS INCLUDE:

a. THE COSTS OF ARCHITECTURAL OR ENGINEERING SERVICES OR OTHER SERVICES INCURRED IN PREPARING A FACILITIES PLAN AND THE DESIGN DRAWINGS AND SPECIFICATIONS FOR A PROJECT. THIS PROVISION DOES NOT APPLY TO PLANNING AND DESIGN COSTS INCURRED IN THE MODIFICATION OR REPLACEMENT OF AN INNOVATIVE OR ALTERNATIVE PROJECT FUNDED UNDER §35.2032(c).

The costs of these services are part of the work which is intended to be defrayed, in part, by the allowance for facilities planning and/or design. Also, if the engineer has provided services to prepare other documents supporting the grant application (e.g., UC system, SUO, intermunicipal agreements, draft plan of operation, value engineering (VE), etc.), the costs associated with such services are not allowable, but again are part of the work which is intended to be defrayed, in part, by the allowance for facilities planning and/or design (see Section III.D.3.c). However, specific planning and design costs are allowable as part of a 100 percent grant for the modification or replacement (M/R) of a failed I/A technology (see Section VI.J).

b. EXCEPT AS PROVIDED IN 1.g ABOVE, ARCHITECTURAL OR ENGINEERING SERVICES OR OTHER SERVICES NECESSARY TO CORRECT DEFECTS IN A FACILITIES PLAN, DESIGN DRAWINGS AND SPECIFICATIONS, OR OTHER SUBAGREEMENT DOCUMENTS.

An example of these unallowable costs would be the engineering costs to update data in the facilities plan (e.g., cost estimates, current population for determining existing needs, etc.), or to evaluate a required alternative (e.g., I/A technology) which was not properly evaluated in the facilities plan. Another example would be the engineering costs of redesigning a treatment plant unit process if the original design did not conform to State design standards, was impractical, or was excessively costly. However, revisions to a facilities plan, design drawings and specifications, or other subagreement documents which are necessary because of changes in EPA or State standards are not considered defects under this section, and are therefore allowable (see Section VII.H.1.c).

c. THE COSTS (INCLUDING LEGAL, TECHNICAL AND ADMINISTRATIVE) OF DEFENDING AGAINST A CONTRACTOR CLAIM FOR INCREASED COSTS UNDER A SUBAGREEMENT OR OF PROSECUTING A CLAIM TO ENFORCE ANY SUBAGREEMENT UNLESS:

Defense and prosecution costs are those costs (including legal, technical, and administrative costs) incurred after any party files a complaint in court or a demand for arbitration. When such action is taken, or appears likely to be taken, the grantee must obtain cost estimates for the legal and technical services deemed necessary for such proceedings. A description of the claim, the facts and issues involved, and cost estimates for the proceedings must be submitted through the State to EPA for approval and the preparation of a grant amendment. This procedure allows the State and EPA to review the claim and, where appropriate, to utilize their experience and expertise to attempt to obtain a resolution before expensive proceedings are undertaken. Where it is determined that there is a significant Federal interest in the claim, EPA will prepare a grant amendment for the reasonable costs necessary for defense or prosecution, and if requsted, may provide technical and legal assistance (see Sections VII.H.3 and VII.H.5, Section C.1 above, and Paragraph 1.f above).

Re: 40 CFR 35.2350

(1) THE CLAIM ARISES FROM WORK WITHIN THE SCOPE OF THE GRANT;

See the "Discussion" portion of Section VII.H.

(2) A FORMAL GRANT AMENDMENT IS EXECUTED SPECIFICALLY COVERING THE COSTS BEFORE THEY ARE INCURRED;

After the grant amendment has been approved (see Section VI.M, and Section C.1 above), the legal and technical services must be procured in accordance with EPA's procurement requirements, as discussed in Section VII.C.8.

(3) THE CLAIM CANNOT BE SETTLED WITHOUT ARBITRATION OR LITIGATION;

In order to determine whether the claim can be settled without arbitration or litigation, the reviewing agency should request and review the following items from the grantee:

(i) Sufficient documentation that timely, good faith efforts were made to pursue negotiations in order to avoid arbitration or litigation, such as:

- a memorandum of negotiation (see EPA publication, "Management of Construction Change Orders - A Guide for Grantees," March 1983, page 10);
- timely analysis of the merits of the claim by the grantee's construction engineer (or other consultant) and legal staff;
- proof of a timely response; and
- a record of attempts made to perform timely and meaningful negotiations.

(ii) The engineer's independent estimate of the value of the claim.

(iii) An independent consultant's report, where appropriate.

(iv) Any other pertinent correspondence between the contractor and the grantee and/or the grantee's engineer.

(4) THE CLAIM DOES NOT RESULT FROM THE GRANTEE's MISMANAGEMENT;

(5) THE REGIONAL ADMINISTRATOR DETERMINES THAT THERE IS SIGNIFICANT FEDERAL INTEREST IN THE ISSUES INVOLVED IN THE CLAIM; AND

See Paragraph 1.f above.

(6) IN THE CASE OF DEFENDING AGAINST A CONTRACTOR CLAIM, THE CLAIM DOES NOT RESULT FROM THE GRANTEE'S RESPONSIBILITY FOR THE IMPROPER ACTION OF OTHERS.

d. BONUS PAYMENTS, NOT LEGALLY REQUIRED, FOR COMPLETION OF BUILDING BEFORE A CONTRACTUAL COMPLETION DATE.

Many construction contracts provide that liquidated damages will be assessed against a contractor for failure to complete the project on schedule (see Section VII.H.1.f). In some instances, contracts also provide monetary incentives (i.e., a bonus) as an inducement to complete the project ahead of schedule. Unless the bonus provision is required by law, a bonus paid by the grantee is an unallowable cost.

e. ALL INCREMENTAL COSTS DUE TO THE AWARD OF ANY SUBAGREEMENTS FOR BUILDING SIGNIFICANT ELEMENTS OF THE PROJECT MORE THAN 12 MONTHS AFTER THE STEP 3 GRANT AWARD OR FINAL STEP 2+3 APPROVALS UNLESS SPECIFIED IN THE PROJECT SCHEDULE APPROVED BY THE REGIONAL ADMINISTRATOR AT THE TIME OF GRANT AWARD.

If the grantee delays the award of any subagreements for building significant elements of the project beyond 12 months after the date of the Step 3 grant award or the final Step 2+3 approvals: (1) the Region should analyze the impact of this delay upon the completion dates of other significant elements of the project as proposals which delay the completion dates of those other elements are not acceptable; and (2) the incremental costs caused by the delay are not allowable allowable, even if the delay is justifiable (e.g., due to circumstances beyond the grantee's control) unless the delay was specified in the project schedule approved by the Regional Administrator when the grant was awarded. The incremental costs include building costs, as well as other costs for services, such as engineering supervision during construction and start-up, and continuing engineering services for the first year after the initiation of operation. The incremental costs for building may be determined by using the ratio of appropriate cost indices (e.g., the construction cost index published in Engineering News Record, or the EPA index published in the Journal of the Water Pollution Control Federation) applied to the subagreement cost awarded to the successful bidders. The numerator in the ratio would be the index 12 months after the date of the Step 3 grant award, or the final Step 2+3 approvals, and the denominator would be the index nearest the date of subagreement award. The ratio, assuming it is less than 1.0, is multiplied by the subagreement amount to determine the allowable cost. This same ratio is applied to other appropriate project costs (e.g., engineering supervision) to determine the allowable cost. The allowable building cost resulting from this adjustment is used to determine the final allowance for facilities planning and/or design (see Sections III.D.3.c and VI.L.1.f).

The project reviewer should also be aware that failure to promptly initiate and complete a project may result in the imposition of sanctions, including termination, pursuant to 40 CFR Part 30, Subpart I. The objective of this requirement is to improve water quality as quickly as possible and to prevent unnecessary increases in construction costs due to inflation.

(Note: Where (1) a grantee opens bids on a significant element of a project prior to the project schedule date and (2) all bidders agree to hold their bids firm until after the date in its project schedule, no grant penalty would be assessed for the delay. The reason being that, through the hold firm agreement, the before and after schedule costs would be the same. However, any increase in ancillary costs (A/E sevices, administrative expenses, legal costs, etc.) attributable to the grantee delay would not be eligible for grant participation.)

3. Other Costs

The following items are not explicitly included in 40 CFR Part 35, Subpart I, Appendix A, but represent prudent fiscal and management principles, and precedent cases:

a. Liquidated Damages

Monies recovered by grantees based on the assessment of liquidated damages have no effect on the determination of allowable costs (i.e., are not considered to be grant related income). Moreover, any additional costs (e.g., building, engineering, legal, or administrative) incurred because of a contractor's lack of timely performance are assumed to be offset by the liquidated damages, and therefore are unallowable, even in the event that the grantee elects not to exercise its right to recover liquidated damages, or the liquidated damages are insufficient to cover the grantee's additional costs.

b. Bid Bond Forfeiture

All bid bond forfeitures are treated as a reduction in the project's costs (i.e., are considered to be grant related income). However, the allowance for facilities planning and/or design continues to be based on the total allowable building cost, without regard to the bid bond forfeiture.

c. Public Liaison Services

Such services are unallowable, since they constitute a type of public information service, and as such are not directly related to, or necessary for, the building of the project.

d. Professional Liability Insurance

Insurance premiums for a contractor (e.g., engineer, construction manager, attorney, accountant, etc.) are allowable only for insurance which the contractor maintains in connection with the general conduct of its business. The types and extent of coverage must be in accordance with sound business practice, and the rates and premiums must be reasonable under the circumstances. The maintenance of professional liability insurance is a sound business practice, and the premiums are allowable, but only as part of the contractor's indirect cost agreement. The cost of additional insurance (e.g., for a specific project), beyond that normally carried by the contractor, is unallowable for grant participation.

e. Services Required by Law

The cost of services, other than engineering services during construction (see Paragraph 1.e above), such as railway or highway flagmen, or utility or highway inspectors, required during the building of the project, are allowable for grant participation provided that:

i. the agency responsible for the affected railway, highway, or utility requires such services for all parties conducting similar types of work, regardless of the source of construction funding for the project;

ii. the project work requiring such services is allowable, and is included in the scope of the approved project;

iii. the cost of such services has not been included in the construction contractor's bid price;

iv. the cost of such services is incurred directly by the grantee;

v. the cost is reasonable; and

vi. the services are required by State or local law.

f. Field Surveys to Identify Cultural Resources

The costs of field surveys to identify historical, architectural, archaeological, and cultural resources in the primary impact areas of the project are not allowable costs, but are part of the preapplication activities which are intended to be defrayed, in part, by the allowance for facilities planning and/or design. Where intensive surveys conducted during facilities planning or design indicate a high probability of discovering important cultural resources, and where the proposed project may have an adverse impact upon such cultural resources, the reasonable cost of services required during the building of the project (i.e., costs to protect previously identified artifacts, structures, etc.) are allowable. Such costs require prior approval by the reviewing agency, and must be supported by documentation justifying their need. The allowability of such work and the associated costs are determined on a case-by-case basis, and must be recommended by the State Historic Preservation Officer (SHPO), and in some cases, the Advisory Council on Historic Preservation (ACHP).

v. contain architectural details (including hardware that is an integral part of the structure) that are designed to enhance the function and appearance of the building, and to reflect regional architectural traditions; and

vi. facilitate the highest productivity and efficiency of the treatment works and its employees.

Decisions concerning the allowability of specific item (particularly those associated with aesthetics) are to be well documented in the project files and made available to the grantee and the project auditor. Allowability decisions which cannot be made using the principles discussed above (see also Section V.C.2.u) are to be submitted from the State to the EPA Regional Office and, if necessary, to EPA Headquarters for review.

Re: EPA Audit Resolution Board Decision 13/14, "Criteria for Assessing the Allowability of Aesthetic Features and Landscaping on EPA Construction Grant Projects," February 24, 1984

b. THE COST OF LAND ACQUIRED FOR THE MITIGATION OF ADVERSE ENVIRONMENTAL EFFECTS IDENTIFIED PURSUANT TO AN ENVIRONMENTAL REVIEW UNDER NEPA.

Section 212(2) of the Act states that only two categories of land are included in the definition of treatment works: Land that will be used as an integral part of the treatment process and land that will be used for the ultimate disposal of residues resulting from such treatment. Because land acquired to mitigate adverse environmental effects is not included in the definition of treatment works, the cost of that land purchase is not allowable. However, although the cost of land purchased to mitigate adverse environmental impacts is unallowable, it does not affect the requirement to mitigate. 40 CFR Part 6 requires that effective mitigation measures be developed and implemented. Also, the applicant must provide in the facilities plan a cost-effectiveness analysis of the feasible alternatives, including the purchase of ineligible land.

C. PRIVATELY OR PUBLICLY OWNED SMALL AND ONSITE SYSTEMS

1. ALLOWABLE COSTS FOR SMALL AND ONSITE SYSTEMS SERVING RESIDENCES AND SMALL COMMERCIAL ESTABLISHMENTS INHABITED ON OR BEFORE DECEMBER 27, 1977 INCLUDE:

   (Note: There is a conflict between this paragraph and 40 CFR 35.2034. EPA has proposed amending this paragraph to agree with the provision of 40 CFR 35.2034 that the requirement for habitation on or before December 27, 1977 applies only to privately owned small and onsite systems.)

   a. THE COST OF MAJOR REHABILITATION, UPGRADING, ENLARGING AND INSTALLING SMALL AND ONSITE SYSTEMS, BUT IN THE CASE OF PRIVATELY OWNED SYSTEMS, ONLY FOR PRINCIPAL RESIDENCES.

      Major rehabilitation may include, as an allowable cost, the demolition and removal of an existing onsite system provided that:

      i. the system, including the septic tank, has failed beyond reasonable repair, and the replacement system is more cost effective than salvaging portions of the existing system; and

      ii. either:

         - there is only one reasonable location on the site for the new system, and the use of that location requires the removal of the existing system, or

         - the existing system constitutes a real and present hazard to safety, public health, or water quality, which can only be abated by the removal of the existing system.

      The demolition and removal of an existing onsite system for the convenience of the owner as a means of increasing property value or property use is unallowable for grant participation.

   b. CONVEYANCE PIPES FROM PROPERTY LINE TO OFFSITE TREATMENT UNIT WHICH SERVES A CLUSTER OF BUILDINGS.

   c. TREATMENT AND TREATMENT RESIDUE DISPOSAL PORTIONS OF TOILETS WITH COMPOSTING TANKS, OIL FLUSH MECHANISMS, OR SIMILAR INHOUSE DEVICES

d. TREATMENT OR PUMPING UNITS FROM THE INCOMING FLANGE WHEN LOCATED ON PRIVATE PROPERTY AND CONVEYANCE PIPES, IF ANY, TO THE COLLECTOR SEWER.

e. THE COST OF RESTORING INDIVIDUAL SYSTEM BUILDING SITES TO THEIR ORIGINAL CONDITION.

2. UNALLOWABLE COSTS FOR SMALL AND ONSITE SYSTEMS INCLUDE:

a. MODIFICATION TO PHYSICAL STRUCTURE OF HOMES OR COMMERCIAL ESTABLISHMENTS.

b. CONVEYANCE PIPES FROM THE HOUSE TO THE TREATMENT UNIT LOCATED ON USER'S PROPERTY OR FROM THE HOUSE TO THE PROPERTY LINE IF THE TREATMENT UNIT IS NOT LOCATED ON THAT USER'S PROPERTY.

c. WASTEWATER GENERATING FIXTURES SUCH AS COMMODES, SINKS, TUBS, AND DRAINS.

D. REAL PROPERTY

1. ALLOWABLE COSTS FOR LAND AND RIGHTS-OF-WAY INCLUDE:

a. THE COST (INCLUDING ASSOCIATED LEGAL, ADMINISTRATIVE AND ENGINEERING COSTS) OF LAND ACQUIRED IN FEE SIMPLE OR BY LEASE OR EASEMENT UNDER GRANTS AWARDED AFTER OCTOBER 17, 1972, THAT WILL BE AN INTEGRAL PART OF THE TREATMENT PROCESS OR THAT WILL BE USED FOR THE ULTIMATE DISPOSAL OF RESIDUES RESULTING FROM SUCH TREATMENT PROVIDED THE REGIONAL ADMINISTRATOR APPROVES IT IN THE GRANT AGREEMENT. THESE COSTS INCLUDE:

(1) THE COST OF A REASONABLE AMOUNT OF LAND, CONSIDERING IRREGULARITIES IN APPLICATION PATTERNS, AND THE NEED FOR BUFFER AREAS, BERMS, AND DIKES: (NOTE: Buffer areas are designed as part of the project to screen sites from public view to control public access, to improve aesthetics and to meet other prescribed State regulatory requirements if applicable.)

(2) THE COST OF LAND ACQUIRED FOR A SOIL ABSORPTION SYSTEM FOR A GROUP OF TWO OR MORE HOMES:

(3) THE COST OF LAND ACQUIRED FOR COMPOSTING OR TEMPORARY STORAGE OF COMPOST RESIDUES WHICH RESULT FROM WASTEWATER TREATMENT;

(4) THE COST OF LAND ACQUIRED FOR STORAGE OF TREATED TREATED WASTEWATER IN LAND TREATMENT SYSTEMS BEFORE LAND APPLICATION. THE TOTAL LAND AREA FOR CONSTRUCTION OF A POND FOR BOTH TREATMENT AND STORAGE OF WASTEWATER IS ALLOWABLE IF THE VOLUME NECESSARY FOR STORAGE IS GREATER THAN THE VOLUME NECESSARY FOR TREATMENT. OTHERWISE, THE ALLOWABLE COST WILL BE DETERMINED BY THE RATIO OF THE STORAGE VOLUME TO THE TOTAL VOLUME OF THE POND.

Where properties are only partially acquired for project purposes, it may be necessary to compensate property owners for the reduced value of their remaining land. The appraisal reports should provide findings on the value of property to be acquired as well as compensatory damages due to partial land takings.

b. THE COST OF COMPLYING WITH THE REQUIREMENTS OF THE UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION POLICIES ACT OF 1970 (42 U.S.C 4621 et.seq., 4651 et seq.), UNDER PART 4 OF THIS CHAPTER FOR LAND NECESSARY FOR THE BUILDING OF TREATMENT WORKS.

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (The Uniform Act), as implemented by EPA under 40 CFR Part 4, is applicable to the acquisition of land necessary for projects receiving EPA grant assistance regardless of whether the land so acquired is eligible for grant assistance (e.g., sewer easements). The cost of complying with 40 CFR Part 4 is allowable; it is only the cost of the land itself which may or may not be eligible for grant assistance.

Representative costs of complying with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 include:

i. cost of appraisal and review appraisal (including supplemental engineering or other studies necessary to properly value improvements, minerals, timber or other resources on the property); costs for surveys and legal boundary descriptions are allowable only where land costs are allowable.

ii. necessary services associated with the acquisition such as title search; documentation relating to just compensation/offer amount; purchase negotiations; preparation of purchase agreement (including options if applicable), proposed deed convenants, legal description, lease agreements and related legal documents;

iii. related costs such as legal notices, closing costs (e.g., transfer tax, evidence of title, recording fee), mortgage prepayment penalties and certain pro-rata prepaid property taxes;

iv. certain legal and other costs relating to abandoned or unsuccessful condemnation proceedings or inverse condemnation proceedings decided in favor of the landowner;

v. advice on relocating and on moving and related expenses for displaced persons, businesses and farms;

vi. replacement housing payments for displaced persons; and

vii. other administrative costs of complying with The Uniform Act.

Each of the above cost limitations are more fully described in 40 CFR Part 4. The reviewing agency should inform grantees regarding their potential eligibility for reimbursement of these costs; and should determine the adequacy of documentation prior to making reimbursement.

Re: 40 CFR 4.3, 4.102(c), 4.102(f), 4.102(g), 4.106, 4.107, 4.207, 4.301 et. seq. (Subpart D), 4.401 et. seq. (Subpart E)

c. THE COST OF CONTRACTING WITH ANOTHER PUBLIC AGENCY OR QUALIFIED PRIVATE CONTRACTOR FOR PART OR ALL OF THE REQUIRED ACQUISITION AND/OR RELOCATION SERVICES.

d. THE COST ASSOCIATED WITH THE PREPARATION OF THE TREATMENT WORKS SITE BEFORE, DURING AND, TO THE EXTENT AGREED ON IN THE GRANT AGREEMENT, AFTER BUILDING. THESE COSTS INCLUDE:

(1) THE COST OF DEMOLITION OF EXISTING STRUCTURES ON THE TREATMENT WORKS SITE (INCLUDING RIGHTS-OF-WAY) IF BUILDING CANNOT BE UNDERTAKEN WITHOUT SUCH DEMOLITION;

Demolition of existing structures on the treatment works site (including rights-of-way), when not required for building the project, will be considered to be an allowable cost only if the existing structures constitute a real and present hazard to safety, public health, or water quality, which can only be abated by the removal of the existing structures. The demolition of an existing structure for the convenience of the owner as a means of increasing property value or property use is unallowable for grant participation.

(2) THE COST (CONSIDERING SUCH FACTORS AS BETTERMENT, COST OF CONTRACTING AND USEFUL LIFE) OF REMOVAL, RELOCATION OR REPLACEMENT OF UTILITIES, PROVIDED THE GRANTEE IS LEGALLY OBLIGATED TO PAY UNDER STATE OR LOCAL LAW; AND

(3) THE COST OF RESTORING STREETS AND RIGHTS-OF-WAY TO THEIR ORIGINAL CONDITION. THE NEED FOR SUCH RESTORATION MUST RESULT DIRECTLY FROM THE CONSTRUCTION AND IS GENERALLY LIMITED TO REPAVING THE WIDTH OF TRENCH.

Repaving beyond the trench width may be considered to be an allowable cost if uniformly required by State or local law for all projects involving road construction, regardless of the source of project funding. Sometimes referred to as "saw width," this provision requires that the road surface and subsurface be cut one or two feet beyond the trench width. This is not, however, to be interpreted as allowing the cost of complete or partial repaving of a road beyond the "saw width."

e. THE COST OF ACQUIRING ALL OR PART OF AN EXISTING PUBLICLY OR PRIVATELY OWNED WASTEWATER TREATMENT WORKS PROVIDED ALL THE FOLLOWING CRITERIA ARE MET:

(1) THE ACQUISITION, IN AND OF ITSELF, CONSIDERED APART FROM ANY UPGRADE, EXPANSION OR REHABILITATION, PROVIDES NEW POLLUTION CONTROL BENEFITS;

(2) THE ACQUIRED TREATMENT WORKS WAS NOT BUILD WITH PREVIOUS FEDERAL OR STATE FINANCIAL ASSISTANCE;

(3) THE PRIMARY PURPOSE OF THE ACQUISITION IS NOT THE REDUCTION, ELIMINATION, OR REDISTRIBUTION OF PUBLIC OR PRIVATE DEBT; AND

(4) THE ACQUISITION DOES NOT CIRCUMVENT THE REQUIREMENTS OF THE ACT, THESE REGULATIONS, OR OTHER FEDERAL, STATE OR LOCAL REQUIREMENTS.

2. UNALLOWABLE COSTS FOR LAND AND RIGHTS-OF-WAY INCLUDE:

a. THE COSTS OF ACQUISITION (INCLUDING ASSOCIATED LEGAL, ADMINISTRATIVE AND ENGINEERING, ETC.) OF SEWER RIGHTS-OF-WAY, WASTE TREATMENT PLANT SITES (INCLUDING SMALL SYSTEM SITES), SANITARY LANDFILL SITES AND SLUDGE DISPOSAL AREAS EXCEPT AS PROVIDED IN PARAGRAPH 1.a. AND b. OF THIS SECTION.

Costs of complying with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 are allowable even if the property being acquired is not (see Section D 1.b above). Costs for property surveys and the preparation of legal boundary descriptions are not allowable where land costs are not allowable.

b. ANY AMOUNT PAID BY THE GRANTEE FOR ELIGIBLE LAND IN EXCESS OF JUST COMPENSATION, BASED ON THE APPRAISED VALUE, THE GRANTEE'S RECORD OF NEGOTIATION OR ANY CONDEMNATION PROCEEDING, AS DETERMINED BY THE REGIONAL ADMINISTRATOR.

An amount higher than the determination of just compensation may be found allowable through an administrative settlement if the grantee provides sufficient written documentation to the Regional Administrator prior to the actual acquisition. Such an administrative settlement may be appropriate where negotiated purchase is unsuccessful and where a condemnation action may entail a long delay or excessive costs. Administrative settlements may be used when it is reasonable, prudent and in the public interest. Documentation may include evidence of purchase negotiations, real property sales data, estimated court settlement and legal costs based on previous condemnation proceedings. Such documentation may form the basis of an administrative settlement with Regional Administrator approval.

c. REMOVAL, RELOCATION OR REPLACEMENT OF UTILITIES LOCATED ON LAND BY PRIVILEGE, SUCH AS FRANCHISE.

These costs are not allowable unless the grantee is required to pay such costs under State or local law.

E. EQUIPMENT, MATERIALS AND SUPPLIES

1. ALLOWABLE COSTS OF EQUIPMENT, MATERIALS AND SUPPLIES INCLUDE:

a. THE COST OF A REASONABLE INVENTORY OF LABORATORY CHEMICALS AND SUPPLIES NECESSARY TO INITIATE PLANT OPERATIONS AND LABORATORY ITEMS NECESSARY TO CONDUCT TESTS REQUIRED FOR PLANT OPERATION.

A suggested list of equipment, supplies, and chemicals for various sizes of treatment plants is given in Appendix B of EPA publication 430/9-74-002, "Estimating Laboratory Needs for Municipal Waste Water Treatment Facilities," 1974. Large stocks of expendable materials are, however, not allowable.

b. THE COSTS FOR PURCHASE AND/OR TRANSPORTATION OF BIOLOGICAL SEEDING MATERIALS REQUIRED FOR EXPEDITIOUSLY INITIATING THE TREATMENT PROCESS OPERATION.

c. COST OF SHOP EQUIPMENT INSTALLED AT THE TREATMENT WORKS NECESSARY TO THE OPERATION OF THE WORKS.

The need for installed shop equipment necessary for the operation of the treatment works should be carefully reviewed to insure that it is cost effective when compared to the cost of equipment rental or the procurement of a contractor to perform the required work. The need will depend on the specific item, its frequency of expected use, and the size and complexity of the treatment facility. Undoubtedly, larger treatment facilities will have a greater need for installed shop equipment than smaller ones. For example, a portable welding machine may be appropriate for a large facility, whereas it may be more economical for a smaller community to employ a local welder when necessary. Also, smaller projects may not have the staff (e.g., skilled machinists) necessary to operate some of the equipment. Where the proposed items of equipment are inappropriate to the size of the treatment works, the reviewing agency may determine that the proposed installed shop equipment is unallowable for grant participation.

d. THE COSTS OF NECESSARY SAFETY EQUIPMENT, PROVIDED THE EQUIPMENT MEETS APPLICABLE FEDERAL, STATE, LOCAL OR INDUSTRY SAFETY REQUIREMENTS.

e. A PORTION OF THE COSTS OF COLLECTION SYSTEM MAINTENANCE EQUIPMENT. THE PORTION OF ALLOWABLE COSTS SHALL BE THE TOTAL EQUIPMENT COST LESS THE COST ATTRIBUTABLE TO THE EQUIPMENT'S ANTICIPATED USE ON EXISTING COLLECTION SEWERS NOT FUNDED ON THE GRANT. THIS CALCULATION SHALL BE BASED ON:

(1) THE PORTION OF THE TOTAL COLLECTION SYSTEM PAID FOR BY THE GRANT,

(2) A DEMONSTRABLE FREQUENCY OF NEED, AND

(3) THE NEED FOR THE EQUIPMENT TO PRECLUDE THE DISCHARGE OR BYPASSING OF UNTREATED WASTEWATER.

See Paragraph E.2.c below for a discussion of other allowable maintenance equipment.

f. THE COST OF MOBILE EQUIPMENT NECESSARY FOR THE OPERATION OF THE OVERALL WASTEWATER TREATMENT FACILITY, TRANSMISSION OF WASTEWATER OR SLUDGE, OR FOR THE MAINTENANCE OF EQUIPMENT. THESE ITEMS INCLUDE:

(1) PORTABLE STAND-BY GENERATORS;

(2) LARGE PORTABLE EMERGENCY PUMPS TO PROVIDE "PUMP-AROUND" CAPABILITY IN THE EVENT OF PUMP STATION FAILURE OR PIPELINE BREAKS: AND

(3) SLUDGE OR SEPTAGE TANKERS, TRAILERS, AND OTHER VEHICLES HAVING AS THEIR SOLE PURPOSE THE TRANSPORTATION OF LIQUID OR DEWATERED WASTES FROM THE COLLECTOR POINT (INCLUDING INDIVIDUAL OR ONSITE SYSTEMS) TO THE TREATMENT FACILITY OR DISPOSAL SITE.

Mobile equipment necessary for the operation of the overall wastewater treatment facility may also include vehicles necessary for the daily removal and disposal of grit. While vehicles used for other purposes (e.g., sludge tanks or trailers) would normally serve this purpose, large facilities may have a sufficient need to justify a separate vehicle to be used solely for the transportation and disposal of grit. Additionally, for projects which involve the landspreading of sludge as the method of ultimate sludge disposal, the necessary vehicles and equipment for proper sludge application are allowable for grant participation.

g. REPLACEMENT PARTS IDENTIFIED AND APPROVED IN ADVANCE BY THE REGIONAL ADMINISTRATOR AS NECESSARY TO ASSURE UNINTERRUPTED OPERATION OF THE FACILITY, PROVIDED THEY ARE CRITICAL PARTS OR MAJOR SYSTEMS COMPONENTS WHICH ARE:

(1) NOT IMMEDIATELY AVAILABLE AND/OR WHOSE PROCUREMENT INVOLVES AN EXTENDED "LEAD-TIME";

(2) IDENTIFIED AS CRITICAL BY THE EQUIPMENT SUPPLIERS(S); OR

(3) CRITICAL BUT NOT INCLUDED IN THE INVENTORY PROVIDED BY THE EQUIPMENT SUPPLIER(S).

h. Flow metering devices used for billing purposes.

The costs of constructing or installing sewage flow metering devices used for billing inter-municipal flows are eligible costs. Meters constructed or installed for the primary purpose of billing individual residential, commercial or industrial users are not eligible.

(NOTE: Prior to this update to the Handbook, there was no clear national program position regarding the eligibility of flow meters for billing purposes. Therefore, prior Regional/State decisions regarding allowability on these items will stand as long as they are clearly documented.)

2. UNALLOWABLE COSTS OF EQUIPMENT, MATERIALS, AND SUPPLIES INCLUDE:

a. THE COSTS OF EQUIPMENT OR MATERIAL PROCURED IN VIOLATION OF THE PROCUREMENT REQUIREMENTS OF 40 CFR PART 33.

b. THE COST OF FURNISHINGS INCLUDING DRAPERIES, FURNITURE AND OFFICE EQUIPMENT.

Because of their wide range in price and their transportability, office furnishings such as chairs, desks, file cabinets, typewriters, coffee tables, pictures, draperies, televisions, radios, telephones, tape recording devices, office supplies, calculators, indoor plants, copiers, book cases or shelves, lamps, food preparation equipment, postage meters, and other items of a similar nature are not allowable costs for grant participation.

c. THE COST OF ORDINARY SITE AND BUILDING MAINTENANCE EQUIPMENT SUCH AS LAWNMOWERS AND SNOWBLOWERS.

Site and building maintenance equipment also includes rakes, shovels, brooms, picks, hedge trimmers, and other such equipment which is transportable and is used for routine maintenance. Such equipment is not allowable for grant participation.

Hand tools (other than those which are specified by the equipment supplier or manufacturer as special purpose tools necessary for the repair and adjustment of specific process components) such as screw drivers, pliers, socket wrenches, electric drills or saws, etc. are not allowable for grant participation.

d. THE COST OF VEHICLES FOR THE TRANSPORTATION OF THE GRANTEES' EMPLOYEES.

This includes buses, trucks, cars, motorcycles, golf carts, bicycles, etc. However, mobile training units may be allowable for grant participation under State training grants authorized by Section 109(b)(1) of the CWA.

e. ITEMS OF ROUTINE "PROGRAMMED" MAINTENANCE SUCH AS ORDINARY PIPING, AIR FILTERS, COUPLINGS, HOSE, BOLTS, ETC.

F. INDUSTRIAL AND FEDERAL USERS

1. EXCEPT AS PROVIDED IN PARAGRAPH F.2.a, ALLOWABLE COSTS FOR TREATMENT WORKS SERVING INDUSTRIAL AND FEDERAL FACILITIES INCLUDE DEVELOPMENT OF A MUNICIPAL PRETREATMENT PROGRAM APPROVABLE UNDER PART 403 OF THIS CHAPTER, AND PURCHASE OF MONITORING EQUIPMENT AND CONSTRUCTION OF FACILITIES TO BE USED BY THE MUNICIPAL TREATMENT WORKS IN THE PRETREATMENT PROGRAM.

The costs of developing a municipal pretreatment program must be carefully examined, primarily in relation to the timing of preparation. The subject of industrial pretreatment would normally be examined during facilities planning (see Section IV.E.2), at which time the grant applicant is able to consider alternative treatment processes and sludge disposal techniques only if the characteristics and flow rate of wastes are known. Similarly, a project may only be designed and construction drawings prepared when the specific waste treatment requirements are known. EPA regulations also require that the UC system and the SUO be approved prior to grant award. Both of these items require specific consideration of industrial waste discharges.

Where the costs of developing a pretreatment program have been incurred prior to grant award, such costs are unallowable. Where the costs of development of a pretreatment program are included in the grant application, approved by the reviewing agency, and incurred after grant award, such costs are allowable for grant participation.

2. UNALLOWABLE COSTS FOR TREATMENT WORKS SERVING INDUSTRIAL AND FEDERAL FACILITIES INCLUDE:

   a. THE COST OF DEVELOPING AN APPROVABLE MUNICIPAL PRETREATMENT PROGRAM WHEN PERFORMED SOLELY FOR THE PURPOSE OF SEEKING AN ALLOWANCE FOR REMOVAL OF POLLUTANTS UNDER PART 403 OF THIS CHAPTER.

   b. THE COST OF MONITORING EQUIPMENT USED BY INDUSTRY FOR SAMPLING AND ANALYSIS OF INDUSTRIAL DISCHARGES TO MUNICIPAL TREATMENT WORKS.

   c. ALL INCREMENTAL COSTS FOR SLUDGE MANAGEMENT INCURRED AS A RESULT OF THE GRANTEE PROVIDING REMOVAL CREDITS TO INDUSTRIAL USERS UNDER 40 CFR 403.7 BEYOND THOSE SLUDGE MANAGEMENT COSTS THAT WOULD OTHERWISE BE INCURRED IN THE ABSENCE OF SUCH REMOVAL CREDITS.

G. INFILTRATION/INFLOW

1. ALLOWABLE COSTS INCLUDE:

   a. THE COST OF TREATMENT WORKS CAPACITY ADEQUATE TO TRANSPORT AND TREAT NONEXCESSIVE INFILTRATION/INFLOW UNDER §35.2120.

   b. THE COSTS OF SEWER SYSTEM REHABILITATION NECESSARY TO ELIMINATE EXCESSIVE INFILTRATION/INFLOW AS DETERMINED IN A SEWER SYSTEM STUDY UNDER §35.2120.

2. UNALLOWABLE COSTS INCLUDE:

a. WHEN THE REGIONAL ADMINISTRATOR DETERMINES THAT THE FLOW RATE IS NOT SIGNIFICANTLY MORE THAN 120 GALLONS PER CAPITA PER DAY UNDER §35.2120(c)(2)(ii), THE INCREMENTAL COST OF TREATMENT WORKS CAPACITY WHICH IS MORE THAN 120 GALLONS PER CAPITA PER DAY.

See Section IV.C.4.3 for a more complete discussion of infiltration/inflow (I/I).

b. The cost of chemical grouting of sewers having structural problems including longitudinally and otherwise badly cracked pipes.

H. MISCELLANEOUS COSTS

1. ALLOWABLE COSTS INCLUDE:

a. THE COSTS OF SALARIES, BENEFITS AND EXPENDABLE MATERIALS THE GRANTEE INCURS FOR THE PROJECT.

In general, the salaries and benefits referred to here are for the grantee's employees (other than elected and appointed officials, as discussed in Paragraph 2.a below), and may be either:

i. specifically identified administrative work which is not a general expense of local government, or

ii. force account work (see Section VI.E.5) for building or building related activities.

Such costs must be included in the grant application and approved by the reviewing agency. Benefits (e.g., health insurance, vacation and holiday compensation, etc.) are overhead items, and to be allowable for grant participation, they must be included in a negotiated indirect cost agreement (see Section F.2.d.ii above).

b. UNLESS OTHERWISE SPECIFIED IN THIS REGULATION, THE COSTS OF MEETING SPECIFIC FEDERAL STATUTORY PROCEDURES.

To be allowable, the costs of meeting Federal statutory requirements must be either approved as a preaward cost, or incurred after grant award. Costs incurred to satisfy statutory requirements for grant award (e.g., preparation of a facilities plan, construction drawings and specifications, UC system, SUO, etc.) are not allowable for grant participation, but are part of the preapplication work which is intended to be defrayed, in part, by the allowance for facilities planning and/or design.

c. COSTS FOR NECESSARY TRAVEL DIRECTLY RELATED TO ACCOMPLISHMENT OF PROJECT OBJECTIVES. TRAVEL NOT DIRECTLY RELATED TO A SPECIFIC PROJECT, SUCH AS TRAVEL TO PROFESSIONAL MEETINGS, SYMPOSIA, TECHNOLOGY TRANSFER SEMINARS, LECTURES, ETC., MAY BE RECOVERED ONLY UNDER AN INDIRECT COST AGREEment.

d. THE COSTS OF ADDITIONS TO A TREATMENT WORKS THAT WAS ASSISTED UNDER THE FEDERAL WATER POLLUTION CONTROL ACT OF 1956 (PUB. L. 84-660), OR ITS AMENDMENTS, AND THAT FAILS TO MEET ITS PROJECT PERFORMANCE STANDARDS PROVIDED:

(1) THE PROJECT IS IDENTIFIED ON THE STATE PRIORITY LIST AS A PROJECT FOR ADDITIONS TO A TREATMENT WORKS THAT HAS RECEIVED PREVIOUS FEDERAL FUNDS;

(2) THE GRANT APPLICATION FOR THE ADDITIONS INCLUDES AN ANALYSIS OF WHY THE TREATMENT WORKS CANNOT MEET ITS PROJECT PERFORMANCE STANDARDS; AND

(3) THE ADDITIONS COULD HAVE BEEN INCLUDED IN THE ORIGINAL GRANT AWARD AND:

(a) ARE THE RESULT OF ONE OF THE FOLLOWING:

(i) A CHANGE IN THE PROJECT PERFORMANCE STANDARDS REQUIRED BY EPA OR THE STATE:

(ii) A WRITTEN UNDERSTANDING BETWEEN THE REGIONAL ADMINISTRATOR AND GRANTEE PRIOR TO OR INCLUDED IN THE ORIGINAL GRANT AWARD:

(iii) A WRITTEN DIRECTION BY THE REGIONAL ADMINISTRATOR TO DELAY BUILDING PART OF THE TREATMENT WORKS; OR

(iv) A MAJOR CHANGE IN THE TREATMENT WORKS' DESIGN CRITERIA THAT THE GRANTEE CANNOT CONTROL; OR

(b) MEET ALL THE FOLLOWING CONDITIONS:

(i) IF THE ORIGINAL GRANT AWARD WAS MADE AFTER DECEMBER 28, 1981, THE TREATMENT WORKS HAS NOT COMPLETED ITS FIRST FULL YEAR OF OPERATION;

(ii) THE ADDITIONS ARE NOT CAUSED BY THE GRANTEE'S MISMANAGEMENT OR THE IMPROPER ACTIONS OF OTHERS;

(iii) THE COSTS OF REWORK, DELAY, ACCELERATION OR DISRUPTION THAT ARE A RESULT OF BUILDING THE ADDITIONS ARE NOT INCLUDED IN THE GRANT; AND

(iv) THE GRANT DOES NOT INCLUDE AN ALLOWANCE FOR FACILITIES PLANNING OR DESIGN OF THE ADDITIONS.

(4) THIS PROVISION APPLIES TO FAILURES THAT OCCUR EITHER BEFORE OR AFTER THE INITIATION OF OPERATION. THIS PROVISION DOES NOT COVER A TREATMENT WORKS THAT FAILS AT THE END OF ITS DESIGN LIFE.

e. COST OF ROYALTIES FOR THE USE OF OR RIGHTS IN A PATENTED PROCESS OR PRODUCT WITH THE PRIOR APPROVAL OF THE REGIONAL ADMINISTRATOR.

Reasonable royalties associated with the procurement of the right to use, or the rights in, a patented product, apparatus, or process are allowable costs, provided that they are:

- necessary,
- cost effective,
- based on a published fee schedule or on reasonable fees charged to other users under similar conditions, and
- receive prior written approval from the reviewing agency.

Periodic payment of royalties for the right to operate under a patent are considered operating costs, and are unallowable for grant participation (see Section V.E for a discussion of operating costs).

f. COSTS ALLOCABLE TO WATER POLLUTION CONTROL PURPOSE OF MULTIPLE PURPOSE PROJECTS AS DETERMINED BY APPLYING THE ALTERNATIVE JUSTIFIABLE EXPENDITURE (AJE) METHOD DESCRIBED IN THE CG SERIES. MULTIPLE PURPOSE PROJECTS THAT COMBINE WASTEWATER TREATMENT WITH RECREATION DO NOT NEED TO USE THE AJE METHOD, BUT CAN BE FUNDED AT THE LEVEL OF THE MOST COST-EFFECTIVE SINGLE-PURPOSE ALTERNATIVE.

See Section IV.C.7.1.h.

g. COSTS OF GRANTEE EMPLOYEES ATTENDING TRAINING WORKSHOPS/ SEMINARS THAT ARE NECESSARY TO PROVIDE INSTRUCTION IN ADMINISTRATIVE, FISCAL OR CONTRACTING PROCEDURES REQUIRED TO COMPLETE THE CONSTRUCTION OF THE TREATMENT WORKS, IF APPROVED IN ADVANCE BY THE REGIONAL ADMINISTRATOR.

To be allowable, attendance at such training workshops or seminars may only occur after grant award.

2. UNALLOWABLE COSTS INCLUDE:

a. ORDINARY OPERATING EXPENSES OF THE GRANTEE INCLUDING SALARIES AND EXPENSES OF ELECTED AND APPOINTED OFFICIALS AND PREPARATION OF ROUTINE FINANCIAL REPORTS AND STUDIES.

b. PREPARATION OF APPLICATIONS AND PERMITS REQUIRED BY FEDERAL, STATE OR LOCAL REGULATIONS OR PROCEDURES.

c. ADMINISTRATIVE, ENGINEERING AND LEGAL ACTIVITIES ASSOCIATED WITH THE ESTABLISHMENT OF SPECIAL DEPARTMENTS, AGENCIES, COMMISSIONS, REGIONS, DISTRICTS OR OTHER UNITS OF GOVERNMENT.

d. APPROVAL, PREPARATION, ISSUANCE AND SALE OF BONDS OR OTHER FORMS OF INDEBTEDNESS REQUIRED TO FINANCE THE PROJECT AND THE INTEREST ON THEM.

e. THE COSTS OF REPLACING, THROUGH RECONSTRUCTION OR SUBSTITUTION, A TREATMENT WORKS THAT WAS ASSISTED UNDER THE FEDERAL WATER POLLUTION CONTROL ACT OF 1956 (PUB. L. 84-660), OR ITS AMENDMENTS, AND THAT FAILS TO MEET ITS PROJECT PERFORMANCE STANDARDS. THIS PROVISION APPLIES TO FAILURES THAT OCCUR EITHER BEFORE OR AFTER THE INITIATION OF OPERATION. THIS PROVISION DOES NOT APPLY TO AN INNOVATIVE AND ALTERNATIVE TREATMENT WORKS ELIGIBLE FOR FUNDING UNDER §35.2032(c) OR A TREATMENT WORKS THAT FAILS AT THE END OF ITS DESIGN LIFE.

f. PERSONAL INJURY COMPENSATION OR DAMAGES ARISING OUT OF THE PROJECT.

g. FINES AND PENALITIES DUE TO VIOLATIONS OF, OR FAILURE TO COMPLY WITH, FEDERAL, STATE OR LOCAL LAWS, REGULATIONS OR PROCEDURES.

h. COSTS OUTSIDE THE SCOPE OF THE APPROVED PROJECT.

i. COSTS FOR WHICH GRANT PAYMENT HAS BEEN OR WILL BE RECEIVED FROM ANOTHER FEDERAL AGENCY.

j. COSTS OF TREATMENT WORKS FOR CONTROL OF POLLUTANT DISCHARGES FROM A SEPARATE STORM SEWER SYSTEM.

k. THE COST OF TREATMENT WORKS THAT WOULD PROVIDE CAPACITY FOR NEW HABITATION OR OTHER ESTABLISHMENTS TO BE LOCATED ON ENVIRONMENTALLY SENSITIVE LAND SUCH AS WETLANDS OR FLOODPLAINS.

After September 30, 1984, grant assistance is limited to the capacity necessary to serve existing needs on the date of grant award (see Section VI.D.18). Therefore, the cost of providing capacity for new habitation is unallowable in all cases. However, if a treatment works includes any reserve capacity which could induce development on environmentally sensitive lands (see Section IV.D.2.2), the cost of the entire treatment works will be unallowable for grant assistance.

1. THE COSTS OF PREPARING A CORRECTIVE ACTION REPORT REQUIRED BY §35.2218(c).

   See Section VII.I.2.b.

3. Other Costs

The following items are not explicitly included in 40 CFR Part 35, Subpart I, Appendix A, but represent prudent fiscal and management principles, based on statutory requirements, regulations, and procedent cases:

a. Administration Building

Allowable costs for an administration building include those portions of the building which are directly related to the project and necessary for operating personnel, including the laboratory, employee locker rooms (separate locker rooms should be provided for men and women), workshop area, storage facilities for operational supplies, spare parts and equipment, necessary lavatory facilities, operator office space, etc. Those portions of an administration building which are not necessary for the daily operation and maintenance of the project are unallowable costs, including portions of the building used for public works functions (other than wastewater treatment), general accounting functions, conference rooms with associated audio-visual equipment, or other general uses not necessary for the operation of the project. Where larger facilities include conference rooms to be used exclusively for training of employees, and such training is demonstrated to be a part of the project's plan of operation, such space is allowable if reasonable, and if approved by the reviewing agency as part of the grant award.

Where unallowable building space is included in an otherwise allowable administration building, the allowable cost is determined by using the ratio of allowable floor space divided by the total floor space in the building. The costs of buildings and portions of buildings which are unallowable are to be deducted from the allowable project building costs for grant computation purposes. Costs associated with unallowable buildings and portions of buildings (e.g., landscaping, driveways, parking spaces, electrical service, and other utility costs) are also unallowable, and must be deducted proportionately from the allowable building costs.

b. Computers

Computers, display monitors, and computer software which are designed into the control system for the daily operation of the treatment works, are allowable project costs, but only to the extent that such equipment is dedicated solely to the operation of the treatment works.

Portable or personal computers are normally not allowable for grant participation, unless justified by the grantee and approved by the reviewing agency as necessary for the operational control and analysis of the treatment works. Examples of such allowable uses include the scheduling of equipment maintenance and replacement, and the operation of the grantee's pretreatment program, including the scheduling of tests to verify industrial compliance with pretreatment requirements. Where portable and personal computers are intended to be used for accounting and billing services as well as the operational control of the treatment works, the costs are to be prorated, based on the estimated use for each purpose.

The cost of computer programs (i.e., software) specifically designed for the operation and maintenance of the treatment works is allowable for grant participation. This includes the cost of developing unique operating programs for the specific grant funded project.

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